ANSI Z21.97-2017 • CSA 2.41-2017
American National Standard

Outdoor decorative gas appliances

REVISED MARCH 2021

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ANSI Z21.97-2017 • CSA 2.41-2017, Outdoor decorative gas appliances

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American National Standard

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Outdoor decorative gas appliances

American National Standards Institute, Inc.

Interprovincial Gas Advisory Council

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Preface

This is the third edition of ANSI Z21.97 • CSA 2.41, *Outdoor decorative gas appliances*. It supersedes the previous editions published in 2014 and 2012.

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

This Standard was prepared by the Z21/CSA Joint Technical Subcommittee on Standards for Decorative Gas Appliances, under the jurisdiction of the Z21/83 Technical Committee on Performance and Installation of Gas Burning Appliances and Related Accessories, the Canadian Technical Committee on Gas Appliances and Related Accessories, and the Strategic Steering Committee on Standards for Fuel Burning Equipment, and had been formally approved by the Technical Committees, American National Standards Institute, and the Interprovincial Gas Advisory Council.

Interpretations: The Strategic Steering Committee on Standards for Fuel Burning Equipment has provided the following direction for the interpretation of standards under its jurisdiction: "The literal text shall be used in judging compliance of products with the safety requirements of this Standard. When the literal text cannot be applied to the product, such as for new materials or construction, and when a relevant committee interpretation has not already been published, CSA Group's procedures for interpretation shall be followed to determine the intended safety principle."

Notes:

1) *Use of the singular does not exclude the plural (and vice versa) when the sense allows.*
2) *This Standard contains SI (Metric) units corresponding to the yard/pound quantities, the purpose being to allow the standard to be used in SI (Metric) units. (IEEE/ASTM SI 10,* American National Standard for Metric Practice*, or ISO 80000-1:2009,* Quantities and units — Part 1: General*, is used as a guide in making metric conversion from yard/pound quantities.) If a value for a measurement and a corresponding value in other units are stated, the first stated value is to be regarded as the requirement. The given corresponding value may be approximate. If a value for a measurement and a corresponding value in other units are both specified as a quoted marking requirement, the first stated unit, or both, are to be provided.*
3) *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 this Standard to judge its suitability for their particular purpose.*
4) *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.*
5) *This Standard is subject to review five years from the date of publication, and 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:*
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   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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History of the development of ANSI Z21.97 • CSA 2.41

Note: *This history is informative and is not part of the standard.*

The draft standard for outdoor decorative gas appliances was based on coverage from *IAS U.S. Requirements for Outdoor Gas Fireplaces*, No. 4-96; the *Standard for Outdoor cooking gas appliances*, ANSI Z21.58-2007 • CSA 1.6-2007; and the *Standard for Vented gas fireplaces*, ANSI Z21.50-2007 • CSA 2.22-2007.

In 2007, due to an increase in the development and use of outdoor gas fireplaces, CSA America was approached by the Hearth, Patio and Barbeque Association (HPBA) to develop an American National Standard for outdoor open flame decorative gas appliances. A working group was formed and a draft standard developed. During March 2008, the draft standard was transferred to the Z21/CSA Joint Technical Advisory Group (TAG) on Standards for Decorative Gas Appliances for review. Revisions were made to the draft standard, and during the TAG's October 29, 2008 meeting the first draft standard was approved for distribution for review and comment.

Following reconsideration, modification, and additional reviews of the proposed draft standard, the joint TAG during its July 27, 2009 meeting recommended the proposed draft standard to the Z21/83 Technical Committee for approval.

The Z21/83 Technical Committee approved the proposed standard for outdoor decorative gas appliances on November 18, 2009.

The American National Standards Institute, Inc., on January 5, 2010, approved the first edition of the American National Standard For Outdoor Decorative Gas Appliances, ANSI Z21.97.

The following identifies the designation and year of the first edition of the standard: ANSI Z21.97-2010

The draft standard was distributed for Review and Comment during July 2009.

The CSA Technical Committee approved the first harmonized standard for outdoor decorative gas appliances on April 4, 2012, and the Z21/83 Technical Committee approved it on April 3, 2012.

The first edition of the harmonized Standard for Outdoor decorative gas appliances was approved by the Interprovincial Gas Advisory Council (IGAC) on July 27, 2012, and by the American National Standards Institute, Inc. on August 1, 2012.

The second edition of the Standard for Outdoor decorative gas appliances was distributed for industry review during June 2010, March 2012, and December 2012; and approved by the Z21/83 Technical Committee on Performance and Installation of Gas Burning and Related Accessories on December 20, 2013; the Canadian Technical Committee on Gas Appliances and Related Accessories on October 30, 2013; ANSI on February 20, 2014; and the IGAC on February 18, 2014.

This, the third edition of the Standard for Outdoor decorative gas appliances was distributed for industry review during July 2013 and November 2013; and approved by the Z21/83 Technical Committee on Performance and Installation of Gas Burning and Related Accessories on November 9, 2017; the Technical Committee on Gas Appliances and Related Accessories on May 26, 2017; ANSI on December 11, 2017; and the IGAC on October 20, 2017.

The previous editions of the outdoor decorative gas appliances standard approved by the Interprovincial Gas Advisory Council and American National Standards Institute, Inc are as follows:

ANSI Z21.97-2012 • CSA 2.41-2012
ANSI Z21.97-2014 • CSA 2.41-2014

The following identifies the designation and year of this Standard:

ANSI Z21.97-2017 • CSA 2.41-2017

Note: *This edition of ANSI Z21.97 • CSA 2.41 incorporates changes to the 2014 edition. Changes, other than editorial, are denoted by a delta symbol in the margin.*

ANSI Z21.97-2017 • CSA 2.41-2017
Outdoor decorative gas appliances

1 Scope

1.1

This Standard applies to newly produced decorative gas appliances for outdoor installation (see Clause 3, Definitions), constructed entirely of new, unused parts and materials; hereinafter referred to as "appliance." Appliances submitted for examination under this Standard are classified as one of the following: portable, stationary, or built-in.

Δ **1.2**

Appliances may be for:

a) connection to a fixed fuel piping system; or
b) connection to a self-contained propane gas supply system (see Clause 3, Definitions). Cylinder(s) for a self-contained system may be either remote to the appliance or integrally mounted on the appliance, are designed for vapor withdrawal only.
   i) Appliances with input ratings less than 60,000 Btu/hr (17 584 W) are designed to accommodate a vertically mounted integral cylinder with a maximum size of 20 lb (9.1 kg) of fuel.
   ii) Appliances with input ratings greater than or equal to 60,000 Btu/hr (17 584 W) may be designed to accommodate a vertically mounted integral cylinder with a maximum size of 30 lb (13.6 kg) of fuel.
   iii) Appliances with input ratings greater than or equal to 80,000 Btu/hr (23 446 W) may be designed for not more than two vertically mounted integral vapor withdrawal cylinders, each with a maximum size of 20 lb (9.1 kg) of fuel.
   iv) Portable appliances intended for table top use are to have input ratings limited to not more than 15,000 Btu/hr (4 396 W), and are designed to accommodate a vertically mounted cylinder with a maximum size of 16.4 oz (465 g) of fuel.
   v) Portable appliances with input ratings not greater than or equal to 25,000 Btu/hr (7 327 W) may be designed for the use of not more than two cylinders, each with a maximum size of 16.4 oz (465 g) of fuel.
   vi) Appliances designed for use with remote propane cylinders are limited to one cylinder of maximum 30 lb (13.6 kg) of fuel or two cylinders with maximum of 20 lb (9.1 kg) of fuel each.

Δ **1.3**

This Standard applies to appliances operating at inlet gas pressures not to exceed $^1/_2$ psi (3.5 kPa) for connection to a fixed fuel piping system and for use with:

a) natural gas; and
b) propane gas.

1.4

The construction of an appliance for use with the above-mentioned gases is described in Clause 4, Construction.

