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ANSI Z21.50:19 • CSA 2.22:19
National Standard of Canada

Vented decorative gas appliances

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ANSI Z21.50:19 • CSA 2.22:19, Vented decorative gas appliances

Revisions from previous edition	Revision symbol (in margin)
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Preface

This is the ninth edition of ANSI Z21.50 • CSA 2.22, *Vented decorative gas appliances*. It supersedes the previous editions published in 2016, 2014, 2012, 2007, 2003, 2000, 1998, and 1996.

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 Vented Gas-Fired Warm Air Heaters, under the jurisdiction of the Z21/83 Technical Committee on Performance and Installation of Gas-Burning Appliances and Related Accessories and the Strategic Steering Committee on Fuels and Appliances. It has been formally approved by the Z21/83 Technical Committee, the Technical Committee on Gas Appliances and Related Accessories, and the Interprovincial Gas Advisory Council.

This Standard has been developed in compliance with Standards Council of Canada requirements for National Standards of Canada. It has been published as a National Standard of Canada by CSA Group.

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History of the development of the Standard for Vented decorative gas appliances

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With the onset of the Free Trade Agreement between the United States and Canada on January 2, 1988, significant attention was given to the harmonization of the United States and Canadian safety standards addressing gas-fired equipment for residential, commercial and industrial applications. It was believed that the elimination of the differences between the standards would remove potential trade barriers and provide an atmosphere in which North American manufacturers could market more freely in the United States and Canada.

A Z21/CGA joint working group on harmonizing decorative gas appliance standards was established. On October 27–28, 1992, the Z21/CGA Joint Decorative Appliance Subcommittee reviewed the second draft harmonized Standard for Vented Gas Fireplaces based on current coverage from the American National Standard for Vented Decorative Gas Appliances, ANSI Z21.50-1989, Addenda ANSI Z21.50a-1990 and Addenda ANSI Z21.50b-1990; and the National Standard of Canada for Vented Decorative Gas Appliances, CAN/CGA-2.22-M86. Following its review, the joint subcommittee modified the draft document and agreed to distribute a second draft for industry review during March 1993. The first draft was not distributed for industry review.

With the formation of joint subcommittees, a Canadian Gas Association Standards Steering Committee on Gas Burning Appliances and Related Accessories was established to parallel Accredited Standards Committee Z21 and Z83, and to support the formation of joint subcommittees. Operating procedures for joint subcommittees were developed in accordance with American National Standards Institute procedures and subsequently approved by ANSI on April 1, 1993.

During its October 6–7, 1993 meeting, the joint decorative gas appliance subcommittee reconsidered the proposed second draft of the harmonized Standard for Vented Gas Fireplaces dated March 1993, in light of comments received. Changes to the delayed ignition and integrity test, addition of a water shock test and revisions to wind test coverage were redistributed for review and comment. At this time, a third draft of the harmonized standard was developed. The third draft including the revisions was recommended to the Z21 Committee and the CGA Standards Steering Committee for approval.

The proposed third draft of the harmonized Standard for Vented Gas Fireplaces was considered by the Z21 Committee at its April 7, 1994 meeting and by the CGA Standards Steering Committee on April 14, 1994. Comments were received from the Z21 Committee and returned to the joint subcommittee for consideration.

At its May 26–27, 1994 meeting, the joint decorative appliance subcommittee reconsidered draft three and proposed revisions, in light of comments received from the Z21 Committee. As a result, the third draft comprised of the second draft and the proposed revisions were revised to included references to American National Standard for Combination Gas Controls for Gas Appliances, ANSI Z21.78 and revisions to the maximum temperature rise for glass and references to combustion chamber pressure relief device. The third draft, plus all revisions, were recommended again to the Z21 Committee by letter ballot dated August 5, 1994, and the CGA Standards Steering Committee for approval.

Comments were again received from the Z21 Committee revising the conversion kit boxed warning and coverage addressing the moisture test. The joint decorative appliance subcommittee agreed with the revisions recommended by the Z21 Committee.

The proposed third draft of the harmonized Standard for Vented Gas Fireplaces and all revisions were approved by the Z21 Committee by letter ballot dated June 26, 1995 and by the CGA Standards Steering Committee on April 15, 1996.

The first edition of the harmonized Z21/CGA Standard for Vented Gas Fireplaces was approved by the Canadian Interprovincial Gas Advisory Council in May 1996, and by the American National Standards Institute Inc., on September 27, 1996.

The second edition of the Standard for Vented Gas Fireplaces was approved by the Canadian Interprovincial Gas Advisory Council on August 7, 1998, and by the American National Standards Institute, Inc. on November 3, 1998.

The third edition of the Standard for Vented Gas Fireplaces was approved by the Canadian Interprovincial Gas Advisory Council on August 22, 2000, and by the American National Standards Institute, Inc. on November 11, 2000.

The fourth edition of the Standard for Vented Gas Fireplaces was approved by the Canadian Interprovincial Gas Advisory Council on August 28, 2003, and by the American National Standards Institute, Inc. on July 11, 2003.

The fifth edition of the Standard for Vented Gas Fireplaces was approved by the Canadian Interprovincial Gas Advisory Council on March 15, 2007, and by the American National Standards Institute on February 22, 2007.

The sixth edition of the Standard for Vented Gas Fireplaces was approved by the Canadian Interprovincial Gas Advisory Council on September 28, 2012, and by the American National Standards Institute, Inc. on December 18, 2012.

The seventh edition of the Standard for Vented Gas Fireplaces was distributed for industry review during May 2012, September 2012, and January 2013; and approved by the Z21/83 Technical Committee on Performance and Installation of Gas Burning Appliances and Related Accessories on December 20, 2013; by the Canadian Technical Committee on Gas Appliances and Related Accessories on October 30, 2013; by the American National Standards Institute, Inc. on February 20, 2014; and by the Interprovincial Gas Advisory Council on February 18, 2014.

The eighth edition of the Standard for Vented Decorative Gas Appliances was distributed for industry review during July 2013, June 2014, November 2014, and December 2014; and approved by the Z21/83 Technical Committee on Performance and Installation of Gas Burning Appliances and Related Accessories on August 29, 2016; by the Canadian Technical Committee on Gas Appliances and Related Accessories on November 4, 2016; by the American National Standards Institute, Inc. on October 31, 2016; and by the Interprovincial Gas Advisory Council on September 20, 2016. This edition reintroduced the term “decorative” to describe the appliances covered in this Standard as not a primary source of heat.

This ninth edition of the Standard for Vented Decorative Gas Appliances was distributed for industry review during December 2016 and September 2017; and approved by the Z21/83 Technical Committee on Performance and Installation of Gas Burning Appliances and Related Accessories on December 7, 2018; by the Canadian Technical Committee on Gas Appliances and Related Accessories on February 11, 2019; by the American National Standards Institute, Inc. on April 10, 2019; and by the Interprovincial Gas Advisory Council on January 8, 2019.

The previous editions of the vented gas fireplace standard, and addenda thereto, approved by the American National Standards Institute, Inc. and the Interprovincial Gas Advisory Council are as follows:

ANSI Z21.50-1996 • CGA 2.22-M96

ANSI Z21.50-1998 • CGA 2.22-M98

ANSI Z21.50-2000 • CSA 2.22-2000

ANSI Z21.50-2003 • CSA 2.22-2003

ANSI Z21.50-2007 • CSA 2.22-2007

ANSI Z21.50-2012 • CSA 2.22-2012
ANSI Z21.50-2014 • CSA 2.22-2014
ANSI Z21.50-2016 • CSA 2.22-2016

ANSI Z21.50a-1998 • CGA 2.22a-M98
ANSI Z21.50b-1998 • CGA 2.22b-M98
ANSI Z21.50a-1999 • CGA 2.22a-M99
ANSI Z21.50b-2000 • CGA 2.22b-M00
ANSI Z21.50a-2001 • CSA 2.22a-2001
ANSI Z21.50b-2002 • CSA 2.22b-2002
ANSI Z21.50a-2003 • CSA 2.22a-2003
ANSI Z21.50b-2005 • CSA 2.22b-2005
ANSI Z21.50a-2008 • CSA 2.22a-2008
ANSI Z21.50b-2009 • CSA 2.22b-2009

The following identifies the designation and year of the harmonized standard:

ANSI Z21.50:19 • CSA 2.22:19

Note: *This edition of ANSI Z21.50 • CSA 2.22 incorporates changes to the 2016 edition. All changes other than editorial are denoted by a Δ in the margin.*

ANSI Z21.50:19 • CSA 2.22:19
Vented decorative gas appliances

1 Scope

1.1

This Standard applies to newly produced vented decorative gas appliances (see Clause 3, Definitions), hereinafter referred to as appliances, constructed entirely of new, unused parts and materials and having input ratings up to and including 400,000 Btu/hr (117 228 W).

These appliances are for:

a) use with natural gas;
b) use with propane;
c) direct vent gas appliances for manufactured home (USA only) or mobile home OEM installation or aftermarket installation convertible for use with natural gas and propane gas when provision is made for the simple conversion from one gas to the other (see Clauses 4.1.22 and 4.1.23);
d) direct vent gas appliances for manufactured home (USA only) or mobile home aftermarket installation for use with natural gas only or propane gas only (see Clause 4.1.23); and
e) direct vent gas appliances for manufactured home (USA only) or mobile home OEM installation for use with propane gas only (see Clause 4.1.22).

The construction of vented decorative gas appliances for use with the above-mentioned gases is covered under Clause 4, Construction.

The performance of vented decorative gas appliances for use with the above-mentioned gases is covered under Clause 5, Performance.

1.2

These appliances are not:

a) for use with a thermostat;
b) a source of heat; and
c) for use with solid fuels.

Δ

1.3

Annex I, Automatic intermittent pilot ignition or on-demand pilot ignition systems for field installation, includes provisions for newly produced (optional) automatic intermittent pilot ignition systems and on-demand pilot ignition systems (see Clause 3, Definitions), constructed entirely of new, unused parts and materials to be adapted in the field to an appliance equipped with an existing continuous pilot burner and which has been examined and tested for compliance with this Standard when installed on the appliance.

1.4

If a value for measurement given in this Standard is followed by an equivalent value in other units, the first stated value is the specification.