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ANSI Z21.5.1-2017 • CSA 7.1-2017

Gas clothes dryers, volume I, type 1 clothes dryers



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Gas clothes dryers, volume I, type 1
clothes dryers***



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Preface

This is the seventh edition of ANSI Z21.5.1 • CSA 7.1, *Gas clothes dryers, volume I, type 1 clothes dryers*. It supersedes the previous editions published in 2016, 2015, 2006, 2002, 1999, and 1995.

This Standard was prepared by the Z21/CSA Joint Technical Subcommittee on Standards for Gas Clothes Dryers, 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.”

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History of the development of the Standard for Gas clothes dryers volume I, type 1 clothes dryers

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

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. The harmonization of these standards was also seen as a step toward harmonization with international standards.

Under an agreement between the Association of Home Appliance Manufacturers (AHAM) and International Approval Services (IAS), Canada Operations, a draft harmonized standard for Type 1 gas clothes dryers was prepared by IAS-Canada staff. On December 6, 1992, the Z21/CGA Joint Clothes Dryers Subcommittee reviewed the first draft harmonized Type 1 gas clothes dryer standard based on current coverage from the American National Standard for *Gas Clothes Dryers Volume I, Type 1 Clothes Dryers*, ANSI Z21.5.1-1992, and National Standard of Canada for *Domestic Gas Clothes Dryers*, CAN1-7.1-M85.

At its December 1992 meeting, the Z21/CGA Joint Clothes Dryer Subcommittee considered and modified the proposed harmonized draft and agreed to distribute it for industry review during August 1993.

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 Committees Z21 and Z83, and to support the formation of joint subcommittees. Operating procedures, in accordance with American National Standards Institute procedures, for joint subcommittees were developed and subsequently approved by ANSI on April 1, 1993.

Following reconsideration and modification of the proposed draft standard for Type 1 gas clothes dryers, in light of comments received, the joint clothes dryers subcommittee, at its October 6, 1993 meeting, recommended the proposed draft to the Z21 Committee and the CGA Standards Steering Committee for approval.

The proposed draft of the harmonized standard for Type 1 gas clothes dryers, as modified by the joint subcommittee, was approved by the Z21 Committee by letter ballot dated December 22, 1993, and by the CGA Standards Steering Committee on April 29, 1994.

The first edition of the harmonized Z21/CGA Standard for *Gas Clothes Dryers Volume I Type 1 Clothes Dryers* was approved by the Interprovincial Gas Advisory Council in February 1995 and by the American National Standards Institute, Inc., in April 1995.

The second edition of the harmonized Z21/CSA Standard for *Gas Clothes Dryers, Volume I Type 1 Clothes Dryers* was approved by the Interprovincial Gas Advisory Council on March 10, 1999 and by the American National Standards Institute, Inc., on April 30, 1999.

The third edition of the harmonized Z21/CSA Standard for *Gas Clothes Dryers, Volume I Type 1 Clothes Dryers* was approved by the Interprovincial Gas Advisory Council on February 7, 2002 and by the American National Standards Institute, Inc., on February 14, 2002.

The fourth edition of the harmonized Standard for *Gas Clothes Dryers, Volume I Type 1 Clothes Dryers* was approved by the Interprovincial Gas Advisory Council on December 1, 2006 and by the American National Standards Institute, Inc., on August 28, 2006.

The fifth edition of the Standard for *Gas clothes dryers, volume I, type 1 clothes dryers* was distributed for industry review during September 2012 and March 2013; and formally approved by the CSA Gas Technical Committee on April 29, 2014, by the Z21/83 Technical Committee on June 25, 2014, by the Interprovincial Gas Advisory Council on December 10, 2014, and by the American National Standards Institute on August 6, 2014.

The sixth edition of the Standard for *Gas clothes dryers, volume I, type 1 clothes dryers* was distributed for industry review during November 2013; and formally approved by the CSA Gas Technical Committee on April 25, 2016, by the Z21/83 Technical Committee on February 17, 2016, by the Interprovincial Gas Advisory Council on March 31, 2016, and by the American National Standards Institute on May 11, 2016.

This, the seventh edition of the Standard for *Gas clothes dryers, volume I, type 1 clothes dryers* was distributed for industry review during September 2016; and formally approved by the CSA Gas Technical Committee on July 2, 2017, by the Z21/83 Technical Committee on August 9, 2017, by the Interprovincial Gas Advisory Council on September 21, 2017, and by the American National Standards Institute on August 21, 2017.

The previous editions of the *Volume I, Type 1 Clothes Dryers* standard, and addenda thereto, approved by the American National Standards Institute, Inc., and the Interprovincial Gas Advisory Council, are as follows:

ANSI Z21.5.1-1995 • CGA 7.1-M95
ANSI Z21.5.1a-1996 • CGA 7.1a-M96
ANSI Z21.5.1b-1998 • CGA 7.1b-M98

ANSI Z21.5.1-1999 • CSA 7.1-M99
ANSI Z21.5.1a-1999 • CSA 7.1a-M99
ANSI Z21.5.1b-2001 • CSA 7.1b-M2001

ANSI Z21.5.1-2002 • CSA 7.1-2002
ANSI Z21.5.1a-2003 • CSA 7.1a-2003
ANSI Z21.5.1b-2005 • CSA 7.1b-2005

ANSI Z21.5.1-2006 • CSA 7.1-2006
ANSI Z21.5.1a-2007 • CSA 7.1a-2007

ANSI Z21.5.1-2015 • CSA 7.1-2015
ANSI Z21.5.1-2016 • CSA 7.1-2016

The following identifies the designation and year of the sixth edition of the standard:

ANSI Z21.5.1-2017 • CSA 7.1-2017

ANSI Z21.5.1-2017 • CSA 7.1-2017

Gas clothes dryers, volume I, type 1 clothes dryers

1 Scope

1.1

This Standard applies to newly produced Type 1 clothes dryers (see Clause 3, Definitions), hereinafter referred to as dryers, constructed entirely of new, unused parts and materials:

- a) for use with natural gas;
- b) for use with manufactured gas;
- c) for use with mixed gas;
- d) for use with propane gas;
- e) for use with LP gas-air mixtures; and
- f) for mobile home installation (see Clause 4.1.12).

The construction of clothes dryers for use with the above mentioned gases is covered under Clause 4.

The performance of clothes dryers for use with the above mentioned gases is covered under Clause 5.

1.2

Clauses 7 and 8 include coverage for electrical equipment, wiring, and accessories built in or supplied for use with the dryer.

1.3

Clause 7 contains provisions that are unique to the United States.

1.4

Clause 8 contains provisions that are unique to Canada.

1.5

Special construction provisions applicable to a dryer designed for use with an optional listed conversion kit are outlined under Annex A, Provisions for listed gas appliances conversion kits (optional).

1.6

All references to “psi” throughout this Standard are to be considered gauge pressures unless otherwise specified.

1.7

Clause 2 contains a list of standards specifically referenced in this Standard and sources from which they may be obtained. Clause 2 includes the U.S. and Canadian reference standards where applicable.

It is the responsibility of the user of this Standard to determine which referenced standard applies, based on the requirements of the Authority Having Jurisdiction at the location of the installation.

1.8

Special construction provisions applicable to a clothes dryer designed for use with an optional listed conversion kit are outlined under Annex A, Provisions for listed gas appliance conversion kits (optional). Also see Clause 4.22.13.

1.9

This Standard contains SI (Metric) equivalents 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* (Standard for use of the International System of Units (SI): The Modern Metric System, IEEE/ASTM SI 10 or ISO 80000-1:2009 *Quantities and units – Part 1: General* are 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.

1.10

In this Standard, “shall” is used to express a requirement, i.e., a provision that the user shall 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

ANSI Z21.15-2009 (R2014) • CSA 9.1-2009 (R2014) and Addenda ANSI Z21.15a-2012 (R2014) • CSA 9.1a-2012 (R2014)

Manually operated gas valves for appliances, appliance connector valves and hose end valves

ANSI Z21.18-2007 (R2012) • CSA 6.3-2007 (R2012) and Addenda ANSI Z21.18a-2010 (R2012) • CSA 6.3a-2010 (R2012)

Gas appliance pressure regulators

ANSI Z21.20-2007

Automatic gas ignition systems and components