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Group**

## **Commercial dishwashers**

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# ***Commercial dishwashers***



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## Commercial Dishwashers

March 23, 2016



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## PREFACE

This is the common CSA Group, and UL standard for Commercial Dishwashers. It is the Second edition of CSA C22.2 No. 168, the Second edition of ANSI/CSA Z83.21, and the Seventh edition of UL 921. This edition of CSA C22.2 No. 168, ANSI/CSA Z83.21, supersedes the previous edition published in 2005. This edition of UL 921 supersedes the previous edition(s) published on January 31, 2005.

This harmonized standard was prepared by CSA Group and Underwriters Laboratories Inc. (UL). The efforts and support of the Z83/CSA Joint Technical Subcommittee on Standards for Gas Food Service Equipment, and representatives of the commercial dishwasher industry in Canada and the United States for developing this harmonized standard are gratefully acknowledged.

Major changes in this edition are the addition of Supplement SA – COMMERCIAL DISHWASHERS SELF-CONTAINED CONDENSING SYSTEMS, updating the reference documents and reformatting to latest editorial guidelines.

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

This standard was reviewed by the Z83/CSA Joint Technical Subcommittee on Standards for Gas Food Service Equipment under the jurisdiction of the Technical Committee on Performance and Installation of Gas Burning Appliances and Related Accessories and the Strategic Steering Committee on Standards for Gas Burning Appliances and Related Accessories, and has been formally approved by the Z21/83 and CSA Technical Committees, American National Standards Institute, and the Interprovincial Gas Advisory Council.

This standard was also reviewed by the CSA Subcommittee on Electrical Motor-Operated Cleaning Appliances for Commercial Use, under the jurisdiction of the CSA Technical Committee on Consumer and Commercial Products, the CSA Strategic Steering Committee on requirements for Electrical Safety, and has been formally approved by the CSA Technical Committee.

This standard has been approved by the American National Standards Institute (ANSI) as an American National Standard.

### Application of Standard

Where reference is made to a specific number of samples to be tested, the specified number is to be considered a minimum quantity.

**Note:** 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.

### Level of Harmonization

This standard is published as an identical standard for CSA Group and UL.

An identical standard is a standard that is exactly the same in technical content except for national differences resulting from conflicts in codes and governmental regulations. Presentation is word for word except for editorial changes.

**Reasons for Differences From IEC**

There is no corresponding IEC standard.

**Interpretations**

The interpretation by the standards development organization of an identical or equivalent standard is based on the literal text to determine compliance with the standard in accordance with the procedural rules of the standards development organization. If more than one interpretation of the literal text has been identified, a revision is to be proposed as soon as possible to each of the standards development organizations to more accurately reflect the intent.

# Commercial Dishwashers

## 1 Scope

1.1 This Standard covers commercial, freestanding, under-counter, and counter-insert dishwashers, utensil-washers, and glass washers using water as the principal cleaning medium, hereafter referred to as dishwashers. These dishwashers utilize steam, gas, or electric heaters for heating the water. Heated water is provided to a dishwasher by means of steam, gas, or electric heating systems integral to the appliance, or by means not integral to the dishwasher that is provided at the installation site.

1.2 This Standard covers:

a) electric dishwashers rated 600 V or less, installed in accordance with the Canadian Electrical Code (CEC), Part 1, CSA C22.1, and the National Electrical Code (NEC), NFPA 70; and

b) the gas-handling, gas-burning, and gas-control features of gas-fired dishwashers having inputs of 400,000 Btu (420 MJ) per hour or less, limited to 0.5 psig (3.45 kPa) inlet pressure, installed in accordance with the National Fuel Gas Code, ANSI Z223.1/NFPA 54, the International Fuel Gas Code, ICC IFGC, or the Natural Gas and Propane Installation Code, CSA B149.1 for use with:

- 1) natural gas;
- 2) manufactured gas;
- 3) mixed gas;
- 4) propane gas;
- 5) liquefied petroleum gases; or
- 6) LP gas-air mixtures.

1.3 These requirements cover dishwashers intended for use in commercial establishments, such as kitchens of restaurants and hospitals, where they are not intended to be accessible to the public.

## 2 General

### 2.1 Components

2.1.1 Except as indicated in 2.1.2, a component of a product covered by this standard shall comply with the requirements for that component. See Appendix A for a list of standards covering components generally used in the products covered by this standard. A component shall comply with the CSA, UL, and ANSI standards as appropriate where the product is to be used.

2.1.2 A component is not required to comply with a specific requirement that:

- a) Involves a feature or characteristic not required in the application of the component in the product covered by this standard, or
- b) Is superseded by a requirement in this standard.