



UL 710

STANDARD FOR SAFETY

Exhaust Hoods for Commercial Cooking Equipment

UL Standard for Safety for Exhaust Hoods for Commercial Cooking Equipment, UL 710

Sixth Edition, Dated September 13, 2012

Summary of Topics

This revision of ANSI/UL 710 dated February 16, 2021 includes integrated ventilator requirements; [7.1](#), [7.4](#), [7.7A](#), Section [27A](#), [30.9](#), [35.3](#), Section [44A](#) and [51.1](#)

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The new and revised requirements are substantially in accordance with Proposal(s) on this subject dated December 4, 2020.

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SEPTEMBER 13, 2012
(Title Page Reprinted: February 16, 2021)



ANSI/UL 710-2021

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UL 710

Standard for Exhaust Hoods for Commercial Cooking Equipment

The first, second, and third editions were titled "Grease Extractors for Exhaust Ducts."

First Edition – October, 1970
Second Edition – November, 1975
Third Edition – July, 1981
Fourth Edition – December, 1990
Fifth Edition – December, 1995

Sixth Edition

September 13, 2012

This ANSI/UL Standard for Safety consists of the Sixth edition including revisions through February 16, 2021.

The most recent designation of ANSI/UL 710 as an American National Standard (ANSI) occurred on February 16, 2021. ANSI approval for a standard does not include the Cover Page, Transmittal Pages, and Title Page.

The Department of Defense (DoD) has adopted UL 710 on October 9, 1992. The publication of revised pages or a new edition of this Standard will not invalidate the DoD adoption.

Comments or proposals for revisions on any part of the Standard may be submitted to UL at any time. Proposals should be submitted via a Proposal Request in UL's On-Line Collaborative Standards Development System (CSDS) at <https://csds.ul.com>.

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INTRODUCTION

1 Scope

1.1 These requirements cover Type I commercial kitchen exhaust hoods intended for placement over commercial cooking equipment. Exhaust hoods with and without exhaust dampers are covered by these requirements.

1.2 Exhaust hoods with and without exhaust fire actuated fire dampers are covered by these requirements.

1.3 Exhaust hoods are evaluated relative to minimum exhaust air flow required and maximum supply air flow allowed for capture and containment of cooking effluents under laboratory conditions.

1.4 Exhaust hoods may incorporate non-continuous welded joints, seams, and penetrations when evaluated by these requirements.

1.5 Exhaust hoods with fire actuated fire exhaust dampers are intended to have the exhaust fire actuated dampers automatically close to prevent exhaust duct gas temperatures from exceeding 375°F (191°C).

1.6 All exhaust hoods are intended for use with fire extinguishing system units.

1.7 These requirements cover exhaust hoods provided with manually or automatically operated cleaning or washing systems. These requirements do not cover the fire extinguishing aspects of such systems.

1.8 These requirements do not cover evaluation of Ultra Violet (UV) systems for use in commercial kitchen exhaust systems. The Outline for Ultraviolet Radiation Systems for Use in the Ventilation Control of Commercial Cooking Operations, UL 710C, covers these products.

1.9 These requirements do not cover evaluation of Electrostatic Precipitators (ESP's) for use in commercial kitchen ventilation. Electrostatic Precipitators (ESP's) are covered under the Standard for Electrostatic Air Cleaners, UL 867.

1.10 These requirements do not cover evaluation of commercial electric cooking appliances provided with integral recirculating systems (previously referred to as ductless hoods) and nonintegral recirculating systems, both of which are intended for installation in commercial establishments for the preparation of food. The Standard for Recirculating Systems, UL 710B, covers these products.

1.11 Exhaust hoods covered by these requirements are intended for installation in accordance with the following:

- a) The Standard for Ventilation Control and Fire Protection of Commercial Cooking Operations, NFPA 96;
- b) The National Electrical Code, NFPA 70; and/or
- c) Other codes such as the International Mechanical Code (IMC) and the Uniform Mechanical Code (UMC).

1.12 These requirements cover products rated 600 volts or less.

1.13 These requirements do not cover evaluation of the exhaust hoods with respect to their grease extraction efficiency.

Note: Capture efficiency of a kitchen hood filter can be measured using ASTM F2519 "Standard Test Method for Grease Particle Capture Efficiency of Commercial Kitchen Filters and Extractors".

2 Units of Measurement

2.1 If a value for measurement is followed by a value in other units in parentheses, the first stated value is the requirement.

3 Components

3.1 Except as indicated in [3.2](#), a component of a product covered by this standard shall comply with the requirements for that component. See Appendix [A](#) of standards covering components used in the products covered by this standard.

3.2 A component is not required to comply with a requirement specified in its specific standard when it:

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.

3.3 A component shall be used in accordance with its recognized rating established for the intended conditions of use.

3.4 Specific components are recognized as being incomplete in construction features or restricted in performance capabilities. Such components are intended for use only under limited conditions, such as certain temperatures not exceeding specified limits, and shall be used only under those specific conditions for which they have been recognized.

4 Undated References

4.1 Any undated reference to a code or standard appearing in the requirements of this standard shall be interpreted as referring to the latest edition of that code or standard.

5 Glossary

5.1 For the purpose of this Standard the following definitions apply.

5.2 CIRCUIT, HIGH-VOLTAGE – A circuit having characteristics in excess of those of a low-voltage circuit. See [5.3](#).

5.3 CIRCUIT, LOW-VOLTAGE – A circuit involving a potential of not more than 30 volts rms alternating-current (42.4 volts peak or direct current), and supplied by a primary battery or by a Class 2 transformer or by a combination of transformer and fixed impedance which, as a unit, complies with all the performance requirements for a Class 2 transformer.

5.4 COMBUSTIBLE MATERIAL – Material made of or surfaced with wood, compressed paper, plain fibers, or other material that will ignite and burn, as applied to materials adjacent to or in contact with heat-producing appliances, grease duct and vent connectors, steam and hot water pipes, and warm air ducts. Such material shall be considered as combustible even though flame proofed, fire-retardant treated, or plastered.

5.5 COOKING APPLIANCE – cooking device used in kitchen operated by gas and/or electricity.