



UL 907

STANDARD FOR SAFETY
Fireplace Accessories

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UL Standard for Safety for Fireplace Accessories, UL 907

Fourth Edition, Dated March 11, 2016

Summary of Topics

This revision of ANSI/UL 907 dated August 28, 2019 is being issued to update the title page to reflect the most recent designation as a Reaffirmed American National Standard (ANS). No technical changes have been made.

Text that has been changed in any manner or impacted by UL's electronic publishing system is marked with a vertical line in the margin.

The requirements are substantially in accordance with Proposal(s) on this subject dated June 28, 2019.

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UL 907

Standard for Fireplace Accessories

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Fourth Edition

March 11, 2016

This ANSI/UL Standard for Safety consists of the Fourth edition including revisions through August 28, 2019.

The most recent designation of UL 907 as a Reaffirmed American National Standard (ANS) occurred on August 19, 2019. ANSI approval for a standard does not include the Cover Page, Transmittal Pages, and Title Page.

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 apply to fireplace accessories that are intended only for field installation into or attachment to existing masonry fireplaces. Fireplace accessories include items such as heat exchangers, glass door assemblies, and the like. For the purpose of these requirements, fireplace accessories do not include fireplace inserts or devices that incorporate a closed fire chamber.

1.2 Fireplace accessories as covered by these requirements are intended for installation in accordance with the Standard for Chimneys, Fireplaces, Vents and Solid Fuel Burning Appliances, NFPA 211, and in accordance with codes such as the International Building Code, International Mechanical Code, and related mechanical codes.

1.3 A fireplace accessory, as covered by these requirements, is intended for use with solid wood fuel, as specified by the manufacturer.

1.4 These accessories may include:

- a) Field-installed cord-connected or fixed blower assemblies; and
- b) Other field-installed electrical accessories rated at 250 volts or less to be employed in ordinary locations in accordance with the National Electrical Code, NFPA 70.

2 Components

2.1 Except as indicated in 2.2, 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.

2.2 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.

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

2.4 Specific components are 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.

3 Units of Measurement

3.1 Values stated without parentheses are the requirement. Values in parentheses are explanatory or approximate information.

4 Terminology

4.1 The term "product" as used in these requirements refers to all fireplace accessories or any part thereof covered by these requirements unless specifically noted otherwise.

5 Undated References

5.1 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.

6 Glossary

6.1 For the purpose of this standard, the following definitions apply.

6.2 COMBUSTIBLE MATERIAL, NONCOMBUSTIBLE MATERIAL – These terms, as used in this standard, are defined in the Standard for Chimneys, Fireplaces, Vents, and Solid Fuel-Burning Appliances, NFPA 211.

6.3 DOOR ASSEMBLY – A factory-built device intended for field attachment to the front of a fireplace.

6.4 FIREPLACE, MASONRY – A field constructed assembly that is built in accordance with the Standard for Chimneys, Fireplaces, Vents and Solid Fuel Burning Appliances, NFPA 211, or other nationally recognized code requirements.

6.5 FIREPLACE ENCLOSURE – The combustible building materials adjacent to the masonry fireplace test fixture consisting of walls, ceiling, floor, and the like.

6.6 FIRESCREEN – A device that attaches to the fireplace accessory, consisting of a mesh type screen, used to reduce the risk of sparks exiting the fire chamber.

6.7 GRATE – A metal frame for supporting fuel within a fireplace accessory.

6.8 HEARTH – The floor area within a fire chamber.

6.9 HEARTH EXTENSION – The floor area outside a fireplace fire chamber consisting of noncombustible material.

6.10 HEAT EXCHANGER – A factory-built device for use with a fireplace consisting of tubes or ducts that are intended to expel heated air into a room, zone or space to be heated. A device that incorporates a closed fire chamber is not considered a heat exchanger.

6.11 REFLECTOR – A product intended to reflect additional radiant heat from the fireplace.

6.12 REFRACTORY – A noncombustible material used in the construction of a fireplace or fireplace accessory.

6.13 REMOTE COMBUSTION AIR – Combustion air introduced into a fireplace that comes from a room, zone, or space other than that in which the fireplace is located.

CONSTRUCTION

7 Materials

7.1 A fireplace accessory or part shall be made of noncombustible corrosion-resistant materials. Metals shall be used in combinations that are galvanically compatible at any location within the assembly.

7.2 The minimum thickness of metal, including coatings where shown, shall comply with Table 7.1.

Exception No. 1: This requirement does not apply to electrical enclosures. See Enclosure, Section 19.

Exception No. 2: This requirement does not apply to decorative parts.

Table 7.1
Minimum metal thickness

Metal	Inch	(mm)
Aluminum alloys	0.016	(0.41)
Steel (uncoated, painted or plated)	0.042	(1.07)
Galvanized Steel (G90 coating class)	0.018	(0.46)
Galvanized steel (G60 coating class)	0.025	(0.64)
Aluminum-coated steel Type T1-40 (regular)		
[0.40 ounces per square foot (0.12 kg/m ²)]	0.018	(0.46)
Stainless steel	0.012	(0.30)

7.3 Thermal insulation material shall be of a metal or mineral base.

7.4 Thermal insulation shall comply with the following conditions when the fireplace accessory is tested in accordance with these requirements:

- a) The products resulting from the combustion or volatilization of any combustible binder shall be discharged to the chimney;
- b) The insulating material shall remain in its intended position;
- c) The thermal conductivity of the insulating material shall not be increased; and
- d) The thermal insulation shall not show evidence of softening, melting, or deterioration.

7.5 Thermal insulation shall be protected against contact with the products of combustion.

7.6 Thermal insulation that is not self-supporting shall be applied to solid surfaces so that the insulation does not sag. An adhesive or cement used to attach such material shall retain its adhesive qualities at any temperature the adhesive may attain when tested in accordance with these requirements and at 0°F (minus 17.8°C).

7.7 A water-absorbing insulating material shall be protected against wetting by condensation or rain when installed as intended.

7.8 Asbestos and asbestos-containing material shall not be used.

8 Assembly

8.1 General

8.1.1 A fireplace accessory and related parts shall be constructed and assembled to have the strength, rigidity, and durability to withstand damage during tests in accordance with these requirements and during handling and installation.

8.1.2 A joint in a metal surface of a fire chamber or flue gas passageway shall be made tight by being welded, lock-seamed, riveted, bolted, or the like. A joint shall not depend primarily upon cement for tightness.

8.1.3 A fireplace accessory shall be provided with all the parts necessary for the intended installation of a complete unit. Each part or assembly shall be constructed for ready attachment of one to the other without requiring alteration, cutting, threading, drilling, welding, or similar task by the installer.

Exception: An assembly or component part intended to be cut to length or to be fitted by the installer may be provided if means are furnished for joining any altered part to a companion part or assembly. All fasteners required to complete the assembly shall be provided with the product by the manufacturer. Drilling is acceptable if:

- a) The drilling operation does not weaken the assembly or drill into the fire chamber; and*
- b) The size of the required drill bit is specified and instructions clearly describe the locations to be drilled, such as by the use of templates, drawings, descriptions, or the like.*

8.1.4 Insulating materials shall be an integral part of the device if required to protect combustible parts of the building when the fireplace accessory is installed in accordance with the manufacturer's instructions.

Exception: Fire chamber insulating materials may be packaged and shipped with the fireplace accessory if:

- a) The installation instructions include a description of the method of placement of this material; and*
- b) The fireplace accessory is provided with a marking indicating that the material is to be installed before firing.*

The marking shall be located in an area visible to the user before firing the unit.

8.1.5 Two or more parts or subassemblies that must bear a definite relationship to each other shall be:

- a) Arranged and constructed to permit them to be incorporated into the complete assembly without need for alteration or alignment and only in the correct relationship with each other; or
- b) Assembled and shipped from the factory as one element.

8.1.6 If a part of a fireplace accessory is necessary to limit temperatures on adjacent construction:

- a) The part shall be factory-attached; or
- b) The fireplace accessory shall comply with all of the following:
 - 1) The temperature-limiting part shall be:
 - i) Shipped with the fireplace accessory; or
 - ii) Marked with the name or trademark of the manufacturer or private labeler, with a catalog number or equivalent designation, and with the type of equipment with which it is intended to be used.

The associated fireplace accessory shall be marked to indicate the catalog number or equivalent designation of such a part, and the name of the manufacturer or private labeler of that part.

- 2) Assembly of the part shall be in accordance with the requirements in 8.1.3.
- 3) The installation instructions shall define and illustrate the intended assembly of the part.

8.1.7 The fireplace accessory shall have no edges, corners, or projections that present a risk of a cut or puncture-type injury to persons.

8.1.8 A radiation shield or baffle shall be constructed, formed, and supported to provide the intended positioning and to prevent distortion or sagging when tested in accordance with these requirements.

8.2 Separable handle

8.2.1 A separable handle, if provided, shall not remain in position when the user's hand is withdrawn following use.

8.2.2 Storage means shall be provided on the product for separable handles so that when the handle is stored as intended, during the Radiant Fire Test, Section 13, and Brand Fire Test, Section 14, the temperatures on the separable handle do not exceed the temperature limits shown in Table 13.1.

8.3 Firescreen

8.3.1 A firescreen shall be furnished by the manufacturer as part of the fireplace accessory if the existing firescreen cannot be used after installation of the fireplace accessory. Doors are considered a firescreen.

PERFORMANCE

9 General

9.1 When a fireplace accessory is tested in accordance with these requirements, specified temperatures on combustible construction shall be maintained.

9.2 The draft created by the fireplace during its intended operation shall not cause the spillage of the products of combustion from the fireplace or the fireplace accessory into the area served by the device.

9.3 After being tested in accordance with these requirements, the fireplace accessory assembly shall be acceptable for further use.

9.4 Test results indicating compliance with the requirements of 9.3 include the following:

- a) No part of the fireplace accessory has become damaged or permanently distorted to an extent that it will not continue to function as intended.
- b) The effectiveness of any required protective coating or finish has not been reduced.
- c) A ceramic material shows no evidence of cracking, disintegration, or spalling to an extent that the serviceability of any part of an assembly is impaired.
- d) Cracks are not observable in porcelain enamel used as required protective coating when the surface is examined under a microscope of 60 magnification.
- e) The reflectivity of a surface has not been impaired if the reflectivity is utilized to reduce the risk of fire.
- f) Burning or scaling of metal parts is not evident upon visual observation.
- g) The effectiveness of insulating material has not been reduced.

10 Test Installation

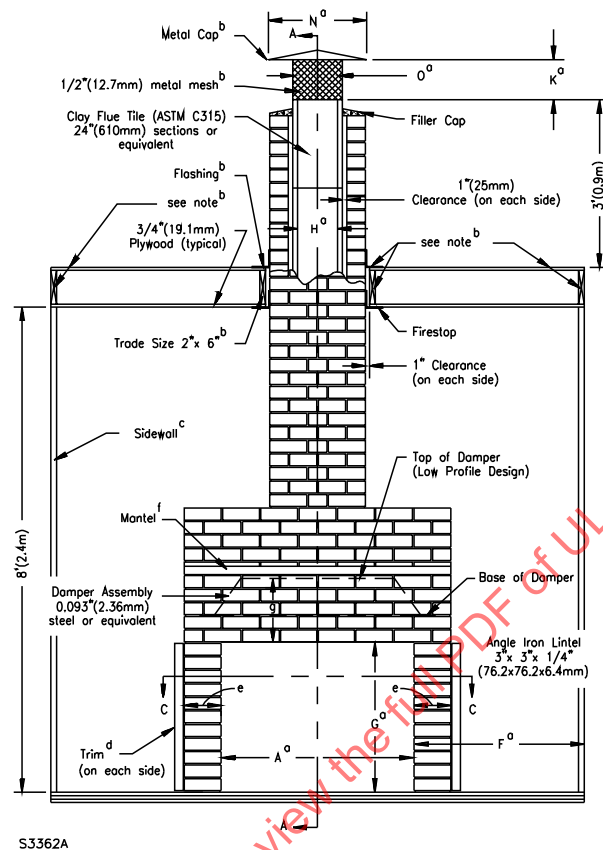
10.1 Tests are to be conducted as described in 10.2 – 10.14. If the fireplace accessory is manufactured in more than one size (for example, to accommodate various sizes of fireplaces), tests are to be conducted on as many sizes as may be deemed necessary to determine compliance with these requirements.

10.2 The sample is to be installed in a test fixture having a 36 inch (914 mm) wide opening unless the installation instructions specify installation in a larger fireplace, in which case the sample is to be installed in a test fixture having a 48-inch (1.22-m) wide opening.

10.3 The test fireplace is to be constructed as specified in Figures 10.1 – 10.4.

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Figure 10.1
Masonry fireplace – front elevation



Metric conversions, lumber		
Trade size, inches	Nominal size	
	inches	(mm)
2 x 6	1-1/2 x 5-1/2	(38 x 140)

^a See Table 10.1 for dimension.

^b Optional features.

^c See Figure 11.4 for thermocouple locations.

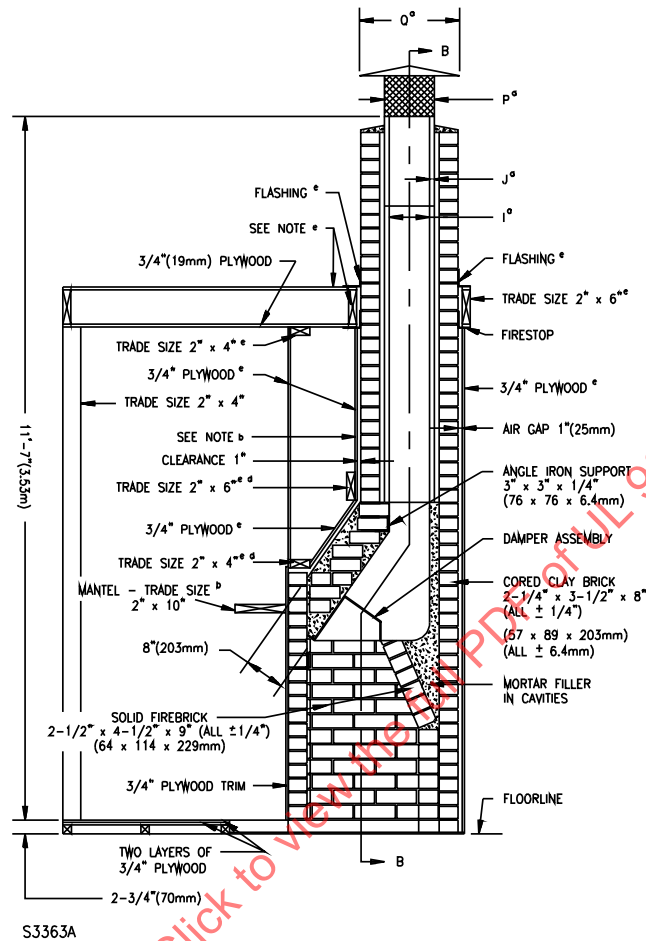
^d See Figure 11.3 for thermocouple locations.

^e Minimum distance from fireplace opening specified in installation instructions. Thermocouples not required when trim is at least 6 inches (152 mm) from the fireplace openings.

^f See Figure 11.5 for thermocouple locations.

^g Minimum distance above fireplace opening specified in installation instructions. Thermocouples not required when mantel is at least 12 inches (305 mm) above fireplace opening.

Figure 10.2
Section A - A of Figure 10.1



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Metric conversions, lumber		
Trade size, inches	Nominal size	
	inches	(mm)
2 x 4	1-1/2 x 3-1/2	(38 x 89)
2 x 6	1-1/2 x 5-1/2	(38 x 140)
2 x 10	1-1/2 x 9-1/2	(38 x 241)

^a See Table 10.1 for dimension

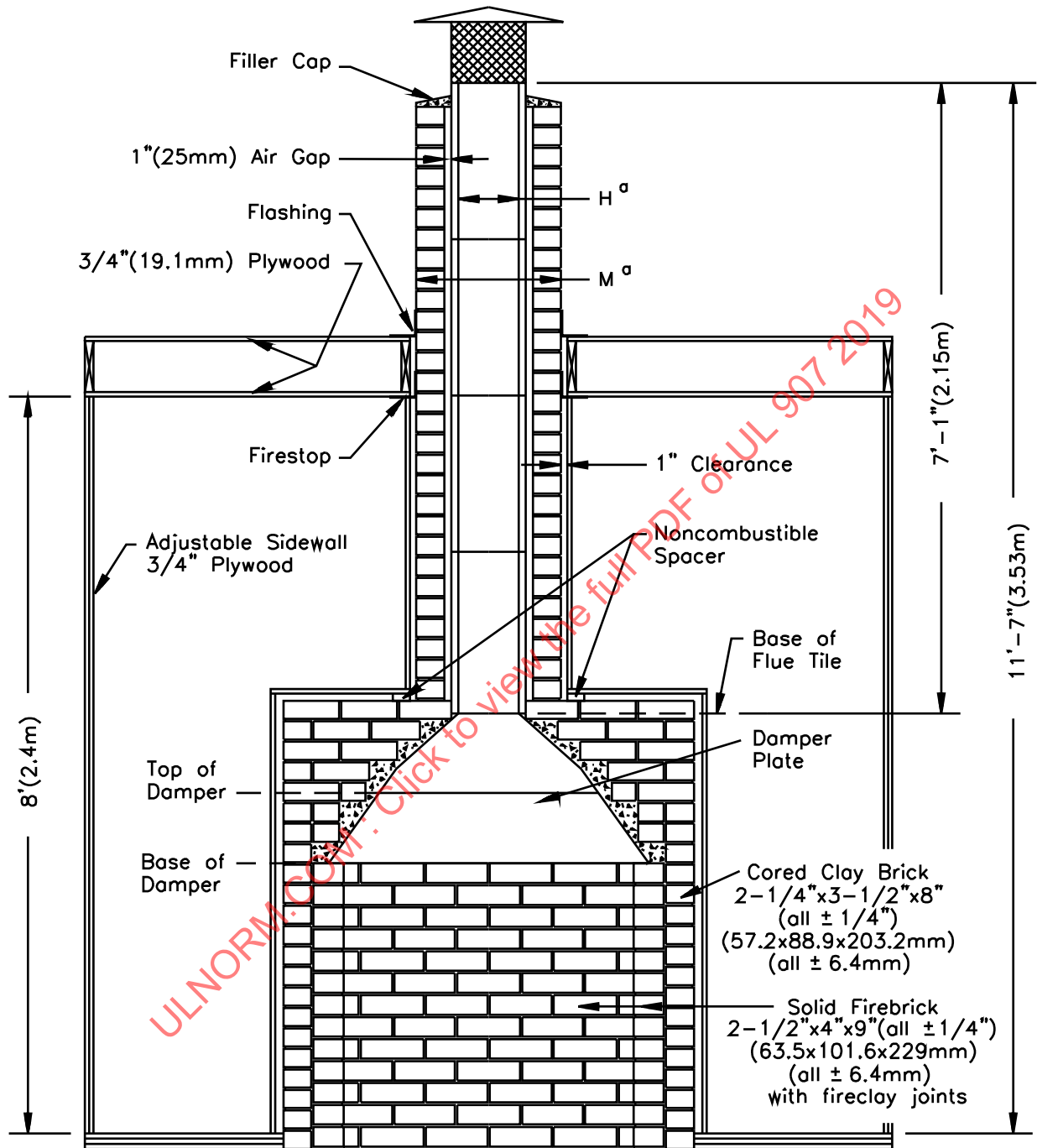
^b See Figure 11.5 for thermocouple locations

^c See Figure 11.3 for thermocouple locations

^d 1 inch air space to be maintained between masonry and plywood, 2 x 4 inches and 2 x 6 inches. Ends of headers may be supported with noncombustible spacers to maintain clearance.

^e Optional features

Figure 10.3
Section B - B of Figure 10.2



S3364A

^a See Table 10.1 for dimension