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SUBJECT 762

OUTLINE OF INVESTIGATION

FOR

POWER ROOF VENTILATORS FOR RESTAURANT EXHAUST APPLIANCES

ISSUE NO: 6

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Summary of Topics:

This revision of Subject 762 is being issued to harmonize the gasket and seals time and temperature requirement with the requirements in UL 710 and UL 1978.

The UL Foreword is no longer located within the UL Outline of Investigation. For information concerning the use and application of the requirements contained in this Outline of Investigation, the current version of the UL Foreword is located on ULStandardsInfoNet at: <http://ulstandardsinfo.net.ul.com/ulforeword.html>

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INTRODUCTION

1 Scope

1.1 These requirements cover roof or wall-mounted ventilators for restaurant exhaust appliances.

1.2 Power ventilators for restaurant exhaust appliances covered by these requirements are intended for installation in accordance with the Standard of the National Fire Protection Association for the Installation of Equipment for the Removal of Smoke and Grease-Laden Vapors from Commercial Cooking Equipment, NFPA 96.

1.3 Power ventilators for restaurant appliances shall comply with the Standard for Power Ventilators, UL 705, modified in that wiring system shall not be located in the path of travel of exhaust products.

2 General

2.1 A component of a power ventilator shall comply with the requirements for that component, except that such requirements may be modified if appropriate for the particular application.

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

3 Undated References

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

CONSTRUCTION

4 Assembly

4.1 A power ventilator shall include all the essential parts necessary for its normal function when installed as intended. The equipment may be shipped as subassemblies.

4.2 All parts, controls, and safety devices requiring normal care shall be accessible. Parts in the assembly which are intended to be removed for normal care shall be of such design that their restoration, following removal, will not necessitate their realignment to secure their proper relationship with other parts of the assembly. Special tools or equipment required for normal maintenance by the operator shall accompany the equipment to the user.

4.3 The exhaust shall terminate a minimum of 40 inches (101.6 cm) above the roof line for roof mounted units. A means shall be provided so that all interior surfaces of the ventilator exposed to the exhaust products can be reached and cleaned by hand without use of specialized tools.

5 Guarding of Moving Parts

5.1 As stated in the Standard for Exhaust Hoods for Commercial Cooking Equipment, UL 710, moving parts, such as a belt, coupling, fan, gear, pulley, shaft, etc. shall be enclosed or guarded.

5.2 An opening in an enclosure for a moving part shall be of such size or shape or so situated that a rod of the diameter specified below is prevented from entering the opening:

- a) If the distance from the face of an opening to a moving part is 1/2 inch (12.7 mm) or less, the diameter of the rod shall be equivalent to the distance measured from a straight edge placed across the exterior face of the opening to be checked to the nearest moving part.
- b) If the exterior face of an opening is more than 1/2 inch (12.7 mm), but not more than 2 inches (50.8 mm) from a moving part, the diameter of the rod shall be 33/64 inch (13.1 mm).
- c) If the exterior face of an opening is more than 2 inches (50.8 mm), but not more than 4 inches (101.6 mm) from a moving part, the diameter of the rod shall be 41/64 inch (16.3 mm).
- d) If the exterior face of an opening is more than 4 inches (101.6 mm), but not more than 6 inches (152.4 mm) from a moving part, and the area of the opening is not more than 3 square inches (19.4 cm²), the diameter of the rod shall be 49/64 inch (19.4 mm).
- e) If the exterior face of an opening is more than 6 inches (152.4 mm) from a moving part, the diameter of the rod shall be 1 inch (25.4 mm); except that if the area of the opening is not more than 6 square inches (38.7 cm²), the diameter of the rod shall be 2 inches (50.8 mm).

5.3 Conformance to the preceding paragraph is to be determined by attempting to insert a rod 3 inches (76.2 mm) long and of the specified diameter into the openings when the equipment is assembled.

5.4 It shall not be necessary to remove a permanently attached guard to lubricate the equipment.

6 Operation

6.1 A power ventilator shall be capable of delivering the manufacturer's rated cubic feet per minute at his recommended static pressure and temperature. This rating information shall be marked on the ventilator.

6.2 The ventilator shall be capable of delivering air at a minimum velocity of 500 feet per minute (0.51 cm/s) through its duct collar.

7 Duct Connection

7.1 A means for connection of duct work shall be provided as part of the ventilator.

7.2 The connection shall incorporate stops on the interior surfaces if field-installed duct work may interfere with the operation of movable parts of the assembly.

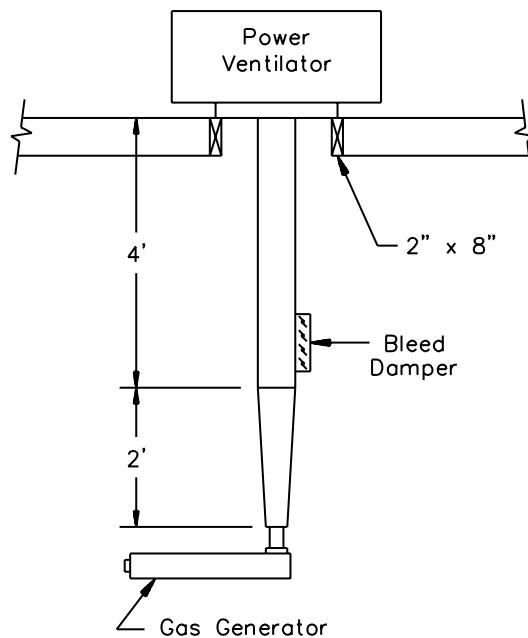
PERFORMANCE

8 Test Installation for Test No. 1 – Normal Temperature Test

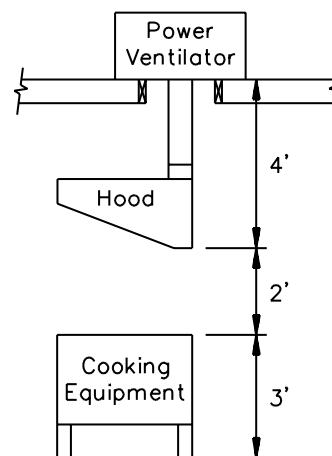
8.1 A representative sample of the style of ventilator to be installed in accordance with the manufacturer's instructions.

8.2 A straight duct 4 feet (1.22 m) long of the same size as the duct connection on the ventilator shall be attached to the ventilator. A bleeder damper shall be installed in the duct perpendicular to the main air flow to allow regulation of mixing air necessary for Test No. 1 – Normal Temperature Test. See Figure 8.1.

Figure 8.1
Test installation



The Test Arrangement was Based on a Typical One Story Installation as Shown Below.



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