

November 11, 2010

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SUBJECT 2158A

OUTLINE OF INVESTIGATION
FOR
CLOTHES DRYER TRANSITION DUCT

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Summary of Topics

This new issue of the Outline of Investigation for Clothes Dryer Transition Duct is published to address clothes dryer transition ducts that may be assembled into two parts and may include sheet metal collars and clamps as part of the assembly.

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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CONTENTS

INTRODUCTION

1 Scope	4
2 General	4
2.1 Reference publications	4
2.2 Units of measurement	4
3 Glossary	4

CONSTRUCTION

4 General	5
5 Corrosion Resistance	5

PERFORMANCE

6 Test Program	6
7 Surface Burning Test	6
8 Flame Resistance Test	7
9 Bending Test	8
10 Corrosion Resistance Test	8
10.1 General	8
10.2 Test for zinc-coated steel	8
10.3 Tests for coated steel (other than zinc-coated steel)	9
11 Puncture Test	10
12 Impact Test	12
13 Tension Test	15
14 Torsion Test	15

MARKINGS

15 General	16
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INSTRUCTIONS

16 Installation Instructions	16
17 User Instructions	17

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INTRODUCTION

1 Scope

1.1 These requirements apply to clothes dryer transition ducts intended for venting household and commercial clothes dryers.

1.2 The ducts covered by these requirements are intended to connect a clothes dryer to an existing permanent duct provided as a part of the building structure. The duct is intended to vent lint and humid air from drying clothes.

1.3 A product that contains features, characteristics, components, materials, or systems new or different from those in use when the Outline of Investigation was developed, and that involves a risk of fire, electric shock, or injury to persons, shall be evaluated using the appropriate additional component and end-product requirements as determined necessary to maintain the level of safety for the user of the product as originally anticipated by the intent of this Outline of Investigation. A product whose features, characteristics, components, materials, or systems conflict with specific requirements or provisions of this Outline of Investigation cannot be judged to comply with this Outline of Investigation. Where considered appropriate, revision of requirements may be proposed and adopted in conformance with the methods employed for development, revision, and implementation of this Outline of Investigation.

2 General

2.1 Reference publications

2.1.1 Where reference is made to other publications, such reference shall be considered to refer to the latest edition and all amendments published to that edition.

2.2 Units of measurement

2.2.1 If a value for measurement is followed by a value in other units in parentheses, the second value may be only approximate. The first stated value is the requirement.

3 Glossary

3.1 CLOTHES DRYER – An appliance used to dry wet laundry by means of heat derived from the combustion of fuel, electric heating elements, or steam.

3.2 CLOTHES DRYER TRANSITION DUCT – A passageway assembled in a factory for conveying the exhaust of a clothes dryer to the venting system installed in the building structure.

CONSTRUCTION

4 General

4.1 A transition duct shall be metal.

Exception: Nonmetallic materials may be employed if constructed in layers in combination with metal. Layered constructions shall comply with the Surface Burning Test, Section 7.

4.2 Flexible ducts shall be factory-made, either as a continuous piece or as a 2-part sectional assembly. Flexible ducts shall not exceed 8 ft (2.4 m) in length.

4.2 revised November 11, 2010

4.3 Sheet metal collars and clamps having a minimum thickness as shown in Table 4.1 may be provided as part of the assembly of the transition clothes dryer ducts. When collars and clamps are included as part of the assembly, the intended final assembly shall be evaluated as specified in the individual sections of this Outline.

4.3 added November 11, 2010

Table 4.1
Minimum thickness

Table 4.1 added November 11, 2010

Galvanized Steel (minimum thickness, in)	Aluminum (minimum thickness, in)
0.013	0.016

5 Corrosion Resistance

5.1 Iron and steel parts other than stainless steel shall be provided with corrosion protection by enamelling, galvanizing, plating, or other equivalent means. Aluminum alloy parts shall be alloy 1100, 3003, or an alloy that has been found to have equivalent resistance to corrosion.

5.2 The corrosion resistant coating shall be that providing protection against atmospheric corrosion at least equivalent to steel having a uniform coating of zinc of not less than 0.3 ounce per square foot (1 g/mm²) of surface area as determined in accordance with 10.2.1.

PERFORMANCE

6 Test Program

6.1 Table 6.1 indicates the tests applicable to rigid and flexible type duct.

Table 6.1
Test program

Section	Test	Type	
		Rigid	Flexible
7	Surface Burning	Yes	Yes
8	Flame Resistance	Yes	Yes
9	Bending	No	Yes
10	Corrosion Resistance	Yes	Yes
11	Puncture	Yes	Yes
12	Impact	Yes	Yes
13	Tension	No	Yes
14	Torsion	No	Yes

7 Surface Burning Test

7.1 With reference to the Exception to 4.1, representative samples of duct employing nonmetallic materials layered with metal shall have surface burning characteristics of not over 25 without evidence of continued progressive combustion (flame spread). The tests for surface burning characteristics are to be conducted as specified in the Standard for Tests for Surface Burning Characteristics of Building Materials, UL 723.

7.2 Samples are to be positioned in the 25 feet (7.62 m) long fire test chamber specified in the Standard for Tests for Surface Burning Characteristics of Building Materials, UL 723. If the duct is sufficiently rigid, no supplemental supports are to be used. When necessary, due to characteristics of a duct that may affect the conduct of the test, 1/4 inch (6.4 mm) diameter steel rods may be used to support the duct. If supporting rods are used, they are to be spaced between 2 feet and 4 feet (0.6 m and 1.2 m) apart as required for support of the samples.

7.3 If the inside and outside surfaces of a duct are of different composition, tests for surface burning characteristics are to be conducted by exposing first one side and then the other to the test conditions, using different samples for each exposure.