



# UL 884

## STANDARD FOR SAFETY

## Underfloor Raceways and Fittings

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UL Standard for Safety for Underfloor Raceways and Fittings, UL 884

Thirteenth Edition, Dated May 20, 2016

### **Summary of Topics**

***This New Edition of ANSI/UL 884 includes the following changes in requirements:***

***Addition of Test Program for Epoxy Coatings***

***Revision to Installation Instructions***

***Other Editorial Revisions***

The requirements are substantially in accordance with Proposal(s) on this subject dated March 18, 2016.

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MAY 20, 2016

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UL 884



## Standard for Underfloor Raceways and Fittings

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### Thirteenth Edition

May 20, 2016

This ANSI/UL Standard for Safety consists of the Thirteenth Edition.

The most recent designation of ANSI/UL 884 as an American National Standard (ANSI) occurred on May 20, 2016. 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 <http://csds.ul.com>.

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## INTRODUCTION

### 1 Scope

1.1 These requirements cover metal underfloor duct systems designed for use as raceways for the installation of wires and cables in accordance with the National Electrical Code (NEC), NFPA 70.

1.2 These requirements do not cover rigid or flexible conduit surface raceways or other products of a similar nature that are covered by individual requirements separate from these requirements.

1.3 General compliance of underfloor raceway systems in accordance with the construction and performance requirements in this standard shall be determined by a study of an actual installation of the system or a completely representative sample installation.

### 2 Undated References

2.1 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.

### 3 Units of Measurement

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

## CONSTRUCTION

### 4 General – System

4.1 All boxes, couplings, elbows, bends, duct supports, and other parts of an underfloor raceway system shall be for use with the duct that is provided to form the complete underfloor raceway system. The construction of boxes and fittings shall block the entrance of fresh concrete wherever joints are made in any actual installation (either between sections of duct, or between duct and boxes or other fittings).

4.2 A component of an underfloor raceway system shall comply with the requirements for the construction, performance, and use of that component.

4.3 The materials used for underfloor raceways and fittings shall be compatible with all other materials in the raceway and fittings system.

4.4 Fittings for use with an underfloor raceway system include all devices and accessories, other than junction boxes and the duct itself, that are designed to form a part of the complete system.

4.5 For convenience in these requirements, fittings are divided into three general groups: duct fittings, outlet fittings, both covered in Section 10, and duct supports which are covered in Section 11.

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## 5 Grounding Continuity

5.1 A reliable path for electrical current shall be provided between all parts of a system of duct and fittings when the system is installed in the intended manner.

5.2 The resistance of the connection of a duct with a fitting shall be tested in accordance with the Grounding Continuity Test, Section 14.

5.3 A sheet metal screw shall not be used for the connection of an equipment grounding conductor.

## 6 Protective Coatings

### 6.1 Preset inserts and ducts

6.1.1 Each preset insert made of iron or steel and all surfaces of duct that are not specifically excepted in 6.1.2 shall be protected against corrosion by one of the following coatings:

- a) A coating of zinc (applied by any method) that complies with the test requirements in 15.1;
- b) A metal coating other than zinc but at least as protective as the coating of zinc that is mentioned in (a);
- c) A system of organic paint or enamel that evaluation shows to be at least as protective as the coating of zinc mentioned in (a); see 15.2.
- d) A system of epoxy coating, which upon evaluation demonstrates the same level of protection as the coating of zinc mentioned in (a); see 15.3.

6.1.2 In the case of zinc-coated sheet-steel duct (zinc applied by any method), a zinc coating is not required at any cut edge or at spot welds.

6.1.3 The edges of holes for preset insets are bare if the holes are cut after the duct is painted or enameled. Paint or enamel is to be added to the edges unless the inserts are made of a zinc-base alloy.

6.1.4 The zinc coating on the inside and outside of finished duct shall be of uniform quality throughout and shall have a smooth and even appearance. Visual inspection shall determine whether duct complies with this requirement.

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