



EXHIBIT 344.4 A three-piece (union-type) coupling. (Courtesy of Appleton™, Emerson Electric Co.)

344.46 Bushings. Where a conduit enters a box, fitting, or other enclosure, a bushing shall be provided to protect the wires from abrasion unless the box, fitting, or enclosure is designed to provide such protection.

Informational Note: See 300.4(G) for the protection of conductors sizes 4 AWG and larger at bushings.

344.56 Splices and Taps. Splices and taps shall be made in accordance with 300.15.

344.60 Grounding. RMC shall be permitted as an equipment grounding conductor.

Part III. Construction Specifications

344.100 Construction. RMC shall be made of one of the following:

- (1) Steel with protective coatings
- (2) Aluminum
- (3) Red brass
- (4) Stainless steel

344.120 Marking. Each length shall be clearly and durably identified in every 3 m (10 ft) as required in the first sentence of 110.21(A). Nonferrous conduit of corrosion-resistant material shall have suitable markings.

ARTICLE

348

Flexible Metal Conduit (FMC)

Part I. General

348.1 Scope. This article covers the use, installation, and construction specifications for flexible metal conduit (FMC) and associated fittings.

348.2 Reconditioned Equipment. FMC shall not be reconditioned.

348.6 Listing Requirements. FMC and associated fittings shall be listed.

Part II. Installation

348.10 Uses Permitted. FMC shall be permitted to be used in exposed and concealed locations.

FMC ½ inch and larger may be installed in unlimited lengths, provided an equipment grounding conductor (EGC) is installed with the circuit conductors.

See also

250.118(A)(5) and **348.60(A)** for specific requirements related to the use of FMC as an EGC

348.12 Uses Not Permitted. FMC shall not be used in the following:

- (1) In wet locations
- (2) In hoistways, other than as permitted in 620.21(A)(1)
- (3) In storage battery rooms
- (4) In any hazardous (classified) location except as permitted by other articles in this Code
- (5) Where exposed to materials having a deteriorating effect on the installed conductors, such as oil or gasoline
- (6) Underground or embedded in poured concrete or aggregate
- (7) Where subject to physical damage

348.20 Size.

(A) Minimum. FMC less than metric designator 16 (trade size ½) shall not be used unless permitted in 348.20(A)(1) through (A)(5) for metric designator 12 (trade size ⅜).

- (1) For enclosing the leads of motors as permitted in 430.245(B)
- (2) In lengths not in excess of 1.8 m (6 ft) for any of the following uses:
 - a. For utilization equipment
 - b. As part of a listed assembly
 - c. For tap connections to luminaires as permitted in 410.117(C)

Trade size ⅜ FMC is permitted to be used as the manufactured or field-installed metal raceway (1½ feet to 6 feet in length) to enclose tap conductors between the outlet box and the terminal housing of recessed luminaires. FMC is also permitted to be used as a 6-foot luminaire whip from an outlet box to a luminaire.

- (3) For manufactured wiring systems as permitted in 604.100(A)

A smaller minimum size for manufactured wiring systems is permitted [see Exception No. 3 to 604.100(A)(2)] because conductors assembled under factory-controlled conditions are not as prone to physical damage.

- (4) In hoistways as permitted in 620.21(A)(1)
- (5) As part of a listed assembly to connect wired luminaire sections as permitted in 410.137(C)