

Kaf-Tech

This product specification is written according to the Construction Specifications Institute
MasterFormat, 2018 Update.

SECTION 26 05 33

LIQUIDTIGHT FLEXIBLE METAL CONDUIT – LFMC

PART 1 – GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions.

1.2 SUMMARY

- A. This Section includes flexible raceways for electrical wiring for commercial, industrial, MRO, and DOT applications.

1.3 REFERENCES

- A. UL 360 - Standard for Liquidtight Flexible Metal Conduit - LFMC
- B. UL 514B – Standard for Conduit, Tubing, and Cable Fittings

1.4 SUBMITTALS

- A. Product Data: For flexible raceway and fitting.
- B. Qualification Data: For testing agency.
- C. Field quality-control test reports.

1.5 QUALITY ASSURANCE

- A. Electrical equipment and materials shall be new and within one year of manufacture, complying with the latest codes and standards. No used, re-built, refurbished and/or re-manufactured electrical equipment and materials shall be furnished on this project.
- B. Testing Agency Qualifications: An independent agency, with the experience and capability to conduct the testing indicated, that is a member company of the International Electrical Testing Association or is a nationally recognized testing laboratory (NRTL) as defined by OSHA in 29 CFR 1910.7, and that is acceptable to authorities having jurisdiction.
- C. Electrical Components, Devices, and Accessories: Listed and labeled as defined in NFPA 70, Article 100, by a testing agency acceptable to authorities having jurisdiction, and marked for intended use.
- D. Flexible Raceways shall be manufactured in accordance with the applicable UL Standard referenced in 1.3 for installation in accordance with NFPA 70 (NEC)

1.6 DELIVERY, STORAGE, AND HANDLING

- A. Deliver materials to site in unopened cartons, coils, reels, or bundles as appropriate, clearly identified with manufacturer's name, Underwriter's or other approved label, grade or identifying number.

PART 2 – PRODUCTS

2.1 LIQUID TIGHT FLEXIBLE METAL CONDUIT

- A. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
 - 1. AFC Cable Systems, Inc. (Liquid Tuff)
- B. Conduit shall be suitable for wet and dry locations, direct burial applications, concrete embedment area, and outdoor rated areas. Applications include lift stations, electric signs, and outdoor lights, hoist/crane systems, solar installations of various types, pool pumps, and anywhere a flexible connection is required due to movement or vibrations.
- C. Conduit shall be rated for special applications where needed such as low smoke/zero halogen, extra oil resistant, extreme temperature, corrosion resistant, and color identification.
- E. Shall be in compliance with UL 360.
- F. Shall be suitable for hazardous installation and meet NEC Code articles 501, 502, and 503 requirements.
- G. Conduit includes integral bond wire allowing the armor to be used as a ground in accordance with NFPA 70 (NEC).
- H. Fittings for LFMC shall be in compliance with UL 514B.

PART 3 - EXECUTION

3.1 RACEWAY APPLICATION

- A. Outdoors: Apply raceway products as specified below, unless otherwise indicated:
 - 1. Exposed, Not Subject to Physical Damage.
 - 2. Concealed Conduit, Aboveground.
 - 3. Connection to Vibrating Equipment (Including Transformers and Hydraulic, Pneumatic, Electric Solenoid, or Motor-Driven Equipment)
 - 4. Dry, damp or wet locations
- B. Comply with the following indoor applications, unless otherwise indicated:
 - 1. Exposed, Not Subject to Physical Damage.
 - 2. Concealed in Ceilings and Interior Walls and Partitions.
 - 3. Connection to Vibrating Equipment (Including Transformers and Hydraulic, Pneumatic, Electric Solenoid, or Motor-Driven Equipment)
 - 4. Dry, damp or Wet Locations.
- C. Minimum Raceway Size: 3/8-inch trade size.
- D. Raceway Fittings: Compatible with raceways and suitable for use and location.
 - 1. Use only fittings listed for use with LFMC.

3.2 PROTECTION

- A. Provide final protection and maintain conditions that ensure coatings, finishes, and cabinets are without damage or deterioration at time of Substantial Completion.

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SECTION 26 05 33

LIQUIDTIGHT FLEXIBLE NONMETALLIC CONDUIT – LFNC

PART 1 – GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions.

1.2 SUMMARY

- A. This Section includes flexible raceways for electrical wiring for commercial, industrial, MRO, and DOT applications.

1.3 REFERENCES

- A. UL 1610 - Standard for Liquidtight Flexible Nonmetallic Conduit - LFNC
- B. UL 514B – Standard for Conduit, Tubing, and Cable Fittings

1.4 SUBMITTALS

- A. Product Data: For flexible raceway and fitting.
- B. Qualification Data: For testing agency.
- C. Field quality-control test reports.

1.5 QUALITY ASSURANCE

- A. Electrical equipment and materials shall be new and within one year of manufacture, complying with the latest codes and standards. No used, re-built, refurbished and/or re-manufactured electrical equipment and materials shall be furnished on this project.
- B. Testing Agency Qualifications: An independent agency, with the experience and capability to conduct the testing indicated, that is a member company of the International Electrical Testing Association or is a nationally recognized testing laboratory (NRTL) as defined by OSHA in 29 CFR 1910.7, and that is acceptable to authorities having jurisdiction.
- C. Electrical Components, Devices, and Accessories: Listed and labeled as defined in NFPA 70, Article 100, by a testing agency acceptable to authorities having jurisdiction, and marked for intended use.

- D. Flexible Raceways shall be manufactured in accordance with the applicable UL

Standard referenced in 1.3 for installation in accordance with NFPA 70 (NEC)

1.6 DELIVERY, STORAGE, AND HANDLING

- A. Deliver materials to site in unopened cartons, coils, reels or bundles as appropriate, clearly identified with manufacturer's name, Underwriter's or other approved label, grade or identifying number.

PART 2 – PRODUCTS

2.1 LIQUID TIGHT FLEXIBLE NON-METALLIC CONDUIT

- A. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
 - 1. AFC Cable Systems, Inc. (Liquid Tuff)
- B. Conduit shall be suitable for wet and dry locations, direct burial applications, concrete embedment area, and outdoor rated areas. Common applications are when installing in a corrosive environment and when a durable non-metallic conduit is required. These include marinas, docks, boat lift stations, pool, and sauna pumps.
- C. Conduit shall be rated for special applications where needed such as low smoke/zero halogen, extra oil resistance, extreme temperature, corrosion resistant, and color identification.
- D. Shall be in compliance with UL 1660.
- E. Shall be suitable for hazardous installation and meet NEC Code articles 501, 502, and 503 requirements.
- F. Fittings for LFNC shall be in compliance with UL 514B.

PART 3 - EXECUTION

3.1 RACEWAY APPLICATION

- A. Outdoors: Apply raceway products as specified below, unless otherwise indicated:
 - 1. Exposed, Not Subject to Physical Damage.
 - 2. Concealed Conduit, Aboveground.
 - 3. Connection to Vibrating Equipment (Including Transformers and Hydraulic, Pneumatic, Electric Solenoid, or Motor-Driven Equipment).
 - 4. Dry, damp or Wet Locations.
- B. Comply with the following indoor applications, unless otherwise indicated:
 - 1. Exposed, Not Subject to Physical Damage.
 - 2. Concealed in Ceilings and Interior Walls and Partitions.
 - 3. Connection to Vibrating Equipment (Including Transformers and Hydraulic, Pneumatic, Electric Solenoid, or Motor-Driven Equipment)
 - 4. Dry, damp or Wet Locations.
- C. Minimum Raceway Size: 3/8-inch trade size.
- D. Raceway Fittings: Compatible with raceways and suitable for use and location.
 - 1. Use only fittings listed for use with LFNC.

3.2 PROTECTION

- A. Provide final protection and maintain conditions that ensure coatings, finishes, and cabinets are without damage or deterioration at time of Substantial Completion.

