

Dual-Rail Specification

PART 1 - GENERAL

1.10 REFERENCE STANDARDS:

- A. Underwriter's Laboratories, Inc. certified No. E80034; National Electrical Code 318; NEMA class 12C (100#/ft./12 ft.).
- B. Canadian Standards Association No. LR 082927, Dual-Rail 3 meter sections are CSA classified "E" (299kg/m/3m).
- C. The cable tray system components shall be certified by one of the following UL, C-UL, CSA and/or a recognized testing laboratory.

1.20 DESCRIPTION:

- A. Complete assembly of aluminum cable tray system and necessary accessories shall be provided as shown on plans. Install entire cable tray system in accordance with all local governing codes.

1.30 SUBMITTALS:

- A. Submittal drawings, in the form of 8 1/2" x 11" catalog cut sheets, shall be provided for the following items: cable trays, fittings, accessories and load data.

PART 2 - PRODUCTS

2.10 MATERIALS

- A. Aluminum, 6063-T6 alloy. Dual-Rail shall be a ladder-like construction of longitudinal spines and transverse rungs. Width and depth as indicated on the project drawings. The tray sections shall be connected by two (2) aluminum splice connectors, installed inside the inner portion of the main spine members.

2.20 Dual-Rail® Tray - Aluminum

- A. Aluminum Dual-Rail Tray shall be constructed of two (2) 1.5" x 2.75" rectangular extruded aluminum tubes (spines) to which 1/2" square box beam (type C, standard) or 3/4" x 1/2" box beam (type D) (*select one*) rungs are attached on ____ inch (mm) centers. The cross rungs shall be bent up at their ends to a height of ____ inches (mm) to form a dual supported, open sided, cable tray assembly. The tray must not have continuous side rails (at the outer most point of the tray). As noted on drawings, rungs shall emanate at right angles from the top of the spine or bottom of the spine (*select one*).

2.30 FITTINGS

- A. Splice Connectors - Sections of Dual-Rail tray and all other fittings shall be joined by using two (2), two bolt, 4 inch (102mm) long, rectangular splice connectors which telescope into the spines of the tray. Splice connectors shall also allow for thermal expansion/contraction of the tray system. The splice connectors shall be provided with a vertical hole to accept a 1/2 inch (12mm) threaded rod (furnished by others) which may be used to support the tray.
- B. Quick Tee - Horizontal and Vertical quick connect fittings are available to create field-fabricated 90-degree elbows, tees and crosses by clamping to the spine(s).
- C. Horizontal and Vertical Pivot Connectors - Shall be used to create field-fabricated angles of 60 degrees to 30 degrees and fasten into the spine in a similar manner as the above splice connectors with top or side mounted pivot plates.
- D. Factory-fabricated fittings (horizontal and vertical) offer elbows, tees, and crosses fully manufactured and ready for site installation.
- E. Tray Inserts / Tray Covers - Shall be constructed of compatible material and design. Inserts and covers shall be field installed and rigidly secured by means of self-tapping screws.

2.40 CONSTRUCTION

- A. The Dual-Rail rungs must pass through both sections of spine and be staked in place, not screwed or welded. Each tray length shall consist of two parallel spine members, each being a tubular rectangular shape. All fittings and accessories are to be constructed of aluminum and manufactured for use with the cable tray system.

2.50 SUPPORTS

- A. Each Dual-Rail tray section shall be supported on maximum 12 foot (3.6 meters) spans.
- B. Suspended securing to couplings: Two .50" diameter (12mm) pieces of threaded rod each pass through the vertical hole in the corresponding splice connectors, and secure to each using nuts and washers. The couplings telescope into the spines of the tray, and are secured with bolts, washers, and nuts.
- C. Suspended securing to Quick strap hangers: Two .50" diameter (12mm) pieces of threaded rod each secure to a Quick strap the spines of the trays are nested and secured within the Quick strap hangers. The couplings telescope into the spines of the tray, and are secured with bolts, washers, and nuts.
- D. Supported from below on slab: Using Mounting brackets, Quick strap hangers inverted, or sections of channel, to which the Dual-Rail spines shall be secured. The couplings telescope into the spines of the tray, and are secured with bolts, washers, and nuts.
- E. Supported from below on rack/cabinet: Using Mounting brackets to which the Dual-Rail spines shall be secured. The couplings telescope into the spines of the tray, and are secured with bolts, washers, and nuts.
- F. Supported from below on raised floor posts: Using Mounting brackets to which the Dual-Rail spines shall be secured. The couplings telescope into the spines of the tray, and are secured with bolts, washers, and nuts.

2.60 OPTIONAL PAINTED FINISHES

- A. Optional powder coated painted finish to be applied to the outer surfaces of the cable tray and associated components. Prior to the application of the powder coat all surfaces shall be cleaned and have an iron phosphate film applied. The color shall be _____.

PART 3 - MANUFACTURER

3.10 MANUFACTURER

- A. Company specializing in manufacturing products specified in this section must have a minimum of ten years documented experience. The cable tray and fittings shall be manufactured by: **MonoSystems, Inc.**, 4 International Drive, Rye Brook New York 10573. (TEL) 914-934-2075 (FAX) 914-934-2190.