

Article Overview

Cable trays and troughs are connected using splice plates, fasteners, and fittings to ensure structural integrity, proper alignment, and secure cable support.

Key Components for Connection

Splice Plates: These are metal plates used to join two straight sections of cable tray or trough. They are typically bolted to the side rails of each tray section to maintain alignment and structural strength . **Fasteners:** Bolts, nuts, and washers secure the splice plates to the tray sections. Stainless steel or corrosion-resistant fasteners are recommended for durability, especially in industrial or outdoor environments . **Fittings:** For directional changes or branching, horizontal bends, vertical risers, tees, and crosses are used. These fittings are connected to straight sections using the same splice plate and fastener method . **Covers and Hold-Down Clamps:** Optional covers protect cables from dust, moisture, and debris. Hold-down clamps secure the cover to the tray, ensuring cables remain in place .

Installation Best Practices

- o **Alignment:** Ensure tray sections are properly aligned before tightening fasteners to prevent gaps or misalignment that could stress cables .
- o **Support Spacing:** Maintain recommended support intervals (e.g., trapeze hangers, wall brackets) to prevent sagging and overloading .
- o **Grounding:** Metal trays should be grounded according to electrical codes to prevent electrical hazards .
- o **Load Considerations:** Verify that the connected sections can support the intended cable load, considering material, gauge, and width .
- o **Expansion and Flexibility:** Modular designs allow for easy expansion or reconfiguration of the cable run without compromising connection integrity .

Special Considerations for Trough-Type Trays

Trough-type cable trays, with solid or ventilated bottoms, provide extra protection for sensitive cables. Connections should ensure that the bottom remains continuous to prevent cable damage and maintain proper support . Ventilated bottoms allow heat dissipation, so alignment and secure fastening are critical to avoid gaps that could reduce airflow . By following these guidelines, cable tray and trough connections will be secure, compliant, and capable of supporting the intended cable load safely.

Cable Tray Systems Guide HUBBELL Hubbell Wiring Device-Kellems and Hubbell Premise Wiring are divisions of Hubbell

Cable tray trough connection method

The Definitive Guide to Cable Troughing Cable Troughing, which is often called Cable Raceway, Cable Routing System, Cable

Core rules for selecting, installing, grounding, and filling cable trays--clearances, materials, separation, and bonding

Use fish plate to joint & align cable tray where cable tray passes through fire rated wall, approved fire shop drawing

The choice of method should be discussed with a local inspector. The best decision may be to extend only the cables, creating a

This method statement covers the site installation of the cable tray & ladders and the requirements of checks to be

Standard lengths of, 3000, 6000 millimeters Fixed rung spacing of 100 millimeters on center Trough cable tray is generally used for

Plastic Cable Troughs vs. Concrete: Why Plastic is the Preferred Choice Installation Method

Overloading cable trays can lead to a breakdown of the tray, its connecting points, and/or supports, causing hazards to persons

he cable tray system being supported. Structural building members should never be cut, and cable trays should not be installed in

Complete guide to cable tray systems per NEC Article 392. Learn about ladder, solid bottom, ventilated trough, wire mesh, and

Step-by-step cable tray and conduit installation method with safety, quality and inspection

Discover the essential guide to cable tray systems. Learn about ladder, trough, and wire mesh types, key

C. Connections and grounding All troughs must be electrically connected to each other: · Connect horizontal troughs to vertical

A practical guide to product selection and installation This guide for engineers and installers has been developed by ABB as a

Learn how to install cable trays correctly. Get the ultimate step-by-step guide on setting up a seamless and



Cable tray trough connection method

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