

Article Overview

Constructing a mesh cable tray involves careful planning, support installation, tray assembly, grounding, and cable placement to ensure safety, compliance, and durability.

1. Pre-Planning the Route

Before installation, review the approved shop drawings to determine tray layout, length, and location within the building. Identify any bends, branches, or elevation changes and plan the route to minimize rework and ensure compliance with NEC Article 392 .

2. Material Inspection and Preparation

- o Inspect all received materials for damage or discrepancies and remove unsuitable items .
- o Store trays horizontally on a flat surface with timber supports at 1-meter intervals, protecting them from moisture and sunlight .
- o Prepare tools and accessories, including supports, fasteners, and connectors, ensuring they meet contract and safety requirements .

3. Installing Supports

- o Install wall brackets, trapeze supports, or threaded rod systems according to the planned spacing, which affects load capacity and long-term integrity .
- o Ensure supports are level and securely anchored to walls, ceilings, or structural elements.

4. Tray Assembly

- o Lift and position mesh tray sections, which are lightweight and field-modifiable, allowing on-site cutting and bending for corners or elevation changes .
- o Connect straight sections using splice connectors and secure joints with fasteners.
- o Create bends, tees, or crosses as needed using the tray's flexible mesh design or pre-fabricated accessories .

5. Grounding and Bonding

- o Ensure metallic trays are properly bonded to provide a safe path for fault currents .
- o Verify grounding continuity according to NEC requirements to prevent shock hazards and inspection failures.

6. Cable Placement



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- o Begin pulling cables once the tray system is secure and grounded.
- o Maintain 50% fill capacity to allow airflow and prevent overheating .
- o Arrange power and control cables according to type, size, and cross-sectional area, ensuring compliance with tray-rated specifications.

7. Finishing and Protection

- o Apply corrosion protection if required, such as powder coating, galvanizing, or painting, especially for outdoor or harsh environments .
- o Inspect the installation for alignment, secure connections, and proper cable management.

8. Final Checks

- o Confirm all supports, joints, bends, and grounding connections are secure.
- o Verify that the tray system meets design specifications, load requirements, and safety standards . Following these steps ensures a durable, safe, and compliant mesh cable tray installation suitable for industrial, commercial, or data center applications.

Below, we explore why wire mesh trays might be the better choice for your project, especially our line of black powder

Steel Ladder System Hubbell's NEXTFRAME™ Ladder Tray is the effective and widely used cable runway that supports and delivers

Cablofil™ Products Cablofil is the global gold standard for total cable management. Explore the one-stop shop for innovative, fast,

Discover wire mesh cable trays for better airflow, maintenance, and fire safety. Optimize your facility with durable, cost

How to design cable tray? Most projects are roughly defined at the start of cable tray design. For projects that are not

Solutions for All Industries Cable trays are used in all types of industries including fiber optic

Infrastructure Projects: Construction sites, transportation hubs, and utility installations often employ wire mesh cable trays to support



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Cable tray installation guidelines for industrial EPC projects with support spacing, earthing, routing, safety and real site

Tested at every stage of the process, Wire Mesh Cable Tray has performed in a wide variety of

Wire Mesh Cable Tray System for Channeling of Cable Wiring A Simple-to-Install basket cable tray for safe and proper installation of

This project employs VICH wire mesh cable trays as the backbone cabling system,

Unlock the secrets to flawless wire mesh cable tray systems designs, cable tray sizing and

Introduction Stainless Steel (SS) Wire Mesh Cable Trays are an essential component in

Often unheralded, cable trays play a vital role in tray cable installations throughout industrial, commercial, and residential projects.

Mesh cable trays are ideal for the flexible and safe routing of cables from A to B. Due to the different materials and surface finishes,

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