

Horizontal tee opening on the back of the cable tray

Article Overview

A horizontal tee allows three cable tray sections to connect, creating a horizontal branch for routing cables efficiently while maintaining structural integrity and NEMA compliance.

Purpose and Function

A horizontal tee is a cable tray fitting used to link three straight channel sections or compatible transitional fittings, forming a horizontal branch in a cable routing system . It is commonly installed where a main cable tray run needs to split into two directions or connect to equipment, enabling organized and efficient cable distribution.

Types of Horizontal Tees

- o Standard Tee ($W1 = W2$): Connects three sections of equal width, maintaining uniform cable capacity across all branches .
- o Reducing Tee ($W1 > W2$): Connects a wider main tray to a narrower branch, useful when the branch carries fewer cables .
- o Expanding Tee ($W1 < W2$): Connects a narrower main tray to a wider branch, accommodating increased cable volume in the branch .

NEMA Classifications

Horizontal tees are designed to match specific NEMA cable tray classes, ensuring compatibility with side rail widths and splice plate configurations:

- o Class 1: For NEMA Classes 12B and 12C, with 1 1/8" side rail flanges and 4-hole splice plates.
- o Class 2: For NEMA Classes 20A, 20B, and 20C, with 2" side rail flanges and 4-hole splice plates.
- o Class 3: For NEMA Classes exceeding 20C, with 2 3/8" side rail flanges and 8-hole splice plates .

Installation Considerations

- o Ensure the tee aligns with the main tray and branch to maintain proper cable bend radii and prevent stress on cables .
- o Use compatible splice plates and bolts to secure the tee, maintaining structural integrity and grounding continuity .
- o Horizontal tees can be used with ventilated or solid-bottom trays depending on cable type and environmental requirements .
- o Proper support spacing should follow manufacturer recommendations to minimize deflection and maintain

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load capacity .

Applications

Horizontal tees are widely used in:

- o Data centers and telecommunications rooms for fiber and control cable routing.
- o Industrial and commercial installations where multiple cable paths converge.
- o Situations requiring neat, organized branching without compromising cable protection or aesthetics . By selecting the correct type and NEMA class, a horizontal tee ensures efficient cable management, structural safety, and compliance with electrical codes.

What Is a Cable Tray Tee Fitting? A cable tray tee fitting is a branch fitting that connects three tray sections together, allowing cables

Cope fiberglass horizontal tee offers custom fittings for cable tray systems. Factory pre-drilled for fast installation.

Horizontal cross A cable tray fitting that is suitable for joining cable trays in four directions at 90° intervals in the same plane.

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

Welcome to our step-by-step guide on installing cable trays! In this video, we'll explore the

A cable tray system is used to support insulated electrical cables used for power distribution, control, and communication. Cable

Branching out any existing cable runs. F - hot dip galvanised steel PN-EN ISO 1461:2023-02. Available finishes: E - stainless steel. L

Directional fittings allow cable trays to change direction horizontally or vertically without damaging cables.

Ladder cable tray features lightweight, cost-effective, uniquely designed modeling, easy to install, good

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

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We offer a range of cable crossovers and tees, available in both equal and unequal measures, for light, medium, and heavy duty

Find Cope I-BEAM horizontal expanding tee for cable tray systems. Designed for NEMA tray classes, durable steel construction.

More clarity, easy selection: These are the standardised fittings for all OBO cable trays. They are compatible with both the classic

UMI horizontal tee and cross (equal) are specific types of cable tray fittings used to change the direction of the cable tray path or to

Horizontal standard tee fitting for I-BEAM ladder trays. Designed for NEMA cable tray systems with robust splice plates.

Horizontal Tees link three 10" straight channel sections or compatible transitional fittings, enabling the creation of a sleek and

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