

What are anti-sway supports for cable trays

Article Overview

Cable trays require anti-sway supports to maintain stability, prevent lateral movement, and ensure safe operation under mechanical and environmental loads.

Purpose of Anti-Sway Supports

Anti-sway supports, also known as lateral bracing, are used to restrain cable trays from swaying or twisting due to external forces such as wind, seismic activity, or the dynamic forces generated by cables during a short circuit . Without these supports, cable trays can experience excessive deflection, misalignment, or even structural failure, which can compromise both the cables and the overall electrical system .

Support Span and Placement

The spacing of supports is critical for both stability and load-bearing capacity:

- o Short-span trays (typically indoor, non-industrial) are supported every 6 to 8 feet.
- o Intermediate-span trays are supported every 10 to 12 feet.
- o Long-span trays may require supports every 14 to 20 feet, with extra-long spans exceeding 20 feet, especially for outdoor installations . Anti-sway supports are often installed at quarter-span intervals to minimize stress and deflection at splice locations, ensuring the tray remains rigid and aligned .

Standards and Best Practices

- o Cable trays should be installed according to BS EN 61537 or equivalent standards, which define the requirements for cable support systems .
- o Anti-sway supports should be designed and tested as part of the overall system, ensuring compatibility with the tray type, load, and environmental conditions .
- o Proper installation includes using wall brackets, suspended supports, or center suspensions to secure trays and prevent lateral movement .

Additional Considerations

- o Anti-sway supports are particularly important in long outdoor spans, where wind or thermal expansion can induce significant lateral forces .
- o They also help maintain alignment for cable routing, reducing stress on cables and preventing damage over time .
- o Using a combination of splice plates, heavy-duty expansion plates, and lateral braces can enhance the



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structural integrity of the tray system . In summary, anti-sway supports are essential for safe and reliable cable tray installations, especially in industrial, commercial, or outdoor environments where mechanical forces or environmental conditions could compromise the system. Proper design, spacing, and adherence to standards ensure both the longevity of the cable tray and the safety of the electrical installation.

Seismic Cable Bracing Systems for Lighting or HVAC designed & engineered to limit sway during a

A cable tray is a structural system used to support and manage electrical cables in various settings, such as industrial, commercial,

Explore seismic bracing solutions for cable trays. Catalog details wire rope/cable systems, specs, design for earthquake protection.

In designing supports for a cable tray system, consideration should be given to the loads associated with future cable additions and

Discover cable tray supports at TechLine Mfg. Choose from hangers, brackets, and clamps for your needs. Contact us today for

Cable trays are systems that distribute bundles of insulated electrical cables from power supplies to electrical equipment, consisting

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

Discover everything about cable trays in industrial settings: types, benefits, installation tips, and compliance with NEC

Seismic Bracing improves cable tray stability, controls sway, and protects critical power and data systems in seismic

Cable Trays and Cable Tray Supports This appendix provides the design criteria for seismic Category I cable trays and their

Cable ladders and cable trays should be mounted far enough off the floor or roof to allow the cables to exit through the bottom of the

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

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Not all cable trays are equivalent. The mechanical and electrical characteristics, tests, certifications, overall quality management,

MP Husky cable tray clamps are the most reliable, highest quality, and cost effective cable tray clamps in the industry. Proper cable

PLP Anti-Sway Brackets secure the bottom of cable spacers at tangent poles to prevent sway/swinging movement of the bundle.

Learn about the different types of cable tray support, including rod supports and angle steel supports, and how to

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