

Fiberglass cable tray reducing joint

Article Overview

A fiberglass cable tray reducing joint connects trays of different widths while maintaining structural integrity and accommodating thermal expansion.

Purpose and Function

A reducing joint in a fiberglass cable tray system is used to transition between two tray sections of different widths or sizes. It ensures that cables are supported continuously without sharp bends or stress points, which is critical for maintaining cable integrity and system reliability. Fiberglass trays are non-metallic and lightweight, offering excellent corrosion resistance and high-temperature performance, but they require careful handling at joints to prevent stress or cracking under load or thermal expansion .

Installation Considerations

- o Support Placement: Supports should be located close to the reducing joint, typically within 2 feet on each side, to prevent sagging and maintain alignment .
- o Splice Plates: Use vertical or adjustable splice plates to secure the joint. These plates allow for proper alignment and maintain structural strength while permitting slight movement due to thermal expansion .
- o Expansion Accommodation: Fiberglass trays expand and contract with temperature changes. Reducing joints should be installed with expansion guides or clamps that allow the tray to slide slightly, preventing stress on the joint or tray sections .
- o Load Considerations: Ensure the reducing joint can handle the expected cable load. Fiberglass trays may lose some rigidity at elevated temperatures, so consult NEMA FG 1-1993 or manufacturer-specific guidelines for load reduction at higher temperatures .

Best Practices

- o Align the trays carefully to avoid sharp angles that could damage cables.
- o Use pre-punched holes on side rails for easy attachment of splice plates without drilling.
- o For outdoor or high-temperature installations, verify that the reducing joint and tray sections meet the required thermal and mechanical performance standards.
- o Follow NEC Section 300-7(b) and NEMA VE 1 guidelines for expansion and contraction to ensure long-term reliability .

Summary

A fiberglass cable tray reducing joint is essential for connecting different tray widths while maintaining cable support, structural integrity, and accommodating thermal expansion. Proper support placement, use of splice plates, and adherence to load and thermal guidelines are critical for safe and reliable installation .



Fiberglass cable tray reducing joint

Offset-reducing splice plates should be designed and placed so as to maximize the rigidity of the cable tray, unless offset-reducing

THIS DRAWING AND/OR THE TECHNICAL INFORMATION CONTAINED HEREON IS THE PROPERTY OF EATON

Recommended materials for cable trays include copper-free aluminum, stainless steel, and fiberglass (API 14F). Other materials

Cable Tray Installation Guide Installation of B-Line series fiberglass cable tray should be made in accordance with the standards set

Explore Cope's Fiberglass Cable Tray Product Catalog for detailed information on durable and efficient cable management solutions.

Fiberglass Cable Trays are lightweight, corrosion-resistant, and durable cable management solutions designed for industrial,

SFSP-INTECH Fiberglass Reinforced Plastic Cable Management System is available with a full range of fittings, splices, covers,

Discover best practices for cable tray expansion joint installation to accommodate thermal changes, ensuring

Channel cable tray secures cables using Eagle Basket pre-punched holes. New pre-punched holes allow the secure attachment of

FCT FRP Cable Trays are designed specifically for electrical and instrumentation installations, utilizing corrosion-resistant fiber

To order To order a straight section of cable tray, select the appropriate size and material from the charts below and place those

Learn the critical role of a cable tray joint in connecting tray sections for efficient and safe electrical installations.

Cable tray fittings such as reducers and offset reducing connectors are used to join cable trays of different widths or sizes. They



Fiberglass cable tray reducing joint

FRP cable tray fittings for corrosion-resistant cable routing. Fiberglass tray accessories, bends, tees, reducers, and connectors for

Cable Tray Thermal Expansion Guidelines 1) Cable trays need expansion joints to allow for thermal contraction and expansion due

Fiberglass cable channel accessories For additional information and more accessories, view or download

Web: <https://www.supremeacademicresearch.co.za>

