

Article Overview

Flat iron (steel bars) can be used as bridging supports in cable tray systems to provide structural stability, distribute loads, and span gaps between main supports.

Purpose of Flat Iron Bridging

Flat iron bridging is commonly used in cable tray installations to:

- o Support long spans of cable trays where standard supports are insufficient.
- o Distribute weight of heavy cables evenly across the tray.
- o Prevent sagging and maintain proper alignment.
- o Provide lateral stability for ladder or perforated tray systems. Bridging is particularly important in industrial or commercial installations where cable trays carry high-density power, control, or data cables .

Installation Guidelines

- o Material Selection: Use flat iron or steel bars with adequate thickness and width to handle the expected load. Galvanized or stainless steel is preferred for corrosion resistance .
- o Spacing: Install bridging at intervals recommended by the cable tray manufacturer, typically every 1.2 to 2 meters for medium-duty trays, and closer for heavy-duty trays .
- o Attachment: Secure flat iron bridging to the side rails of the cable tray using bolts, clamps, or welding, ensuring a rigid connection that prevents movement .
- o Load Considerations: Calculate the total cable weight and ensure the flat iron can support the combined load without excessive deflection. Refer to manufacturer load tables for guidance .
- o Alignment: Ensure bridging is level and flush with the tray to avoid cable damage and maintain proper cable routing .

Safety and Standards

- o Follow NEC (National Electrical Code) or IEC standards for cable tray installation, including support spacing, grounding, and load ratings .
- o Inspect bridging regularly for corrosion, loose fasteners, or deformation.
- o Avoid sharp edges on flat iron that could damage cable insulation.

Additional Considerations

- o For long spans, consider using multiple bridging bars or combining flat iron with strut channels for added rigidity.
- o In environments with vibration or seismic activity, bridging should be reinforced to prevent tray movement.

Cable tray bridging flat iron

Flat iron bridging can also serve as a mounting point for accessories such as cable clamps, dividers, or grounding conductors. Using flat iron as bridging in cable tray systems ensures structural integrity, safety, and longevity of the cable installation, especially in heavy-duty or industrial applications.

Cable Tray Technical Guide A practical guide to product selection and installation This guide for engineers and installers has been

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This guide covers cable ladder systems, cable tray systems, channel support systems and associated supports intended for the

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INTRODUCTION The B-Line series Cable Tray Manual was produced by our technical staff. We recognize the need for a complete

EVOLine Bridge cable tray screw mounting. The rail is firm, fit for rolling over and so flat that there is no tripping hazard.

What types of cable tray accessories are there? There are several different types of cable tray accessories, which are available in

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