

Using block walls for cable trays



Overview

Guide to cable support systems Examples of support elements include wall and support brackets, suspended supports and centre suspensions. Mounting elements.

Key Takeaways

Cable trays can be securely mounted on block walls using appropriate brackets, fasteners, and support spacing to ensure mechanical stability and compliance with standards. Mounting Cable Trays on Block Walls Cable trays are designed to support and organize electrical and communication cables and can be installed on ceilings, floors, or walls, including block walls, using proper support elements and mounting hardware. When using block walls: Support Brackets: Wall-mounted cantilever or TKS/TKA brackets are commonly used to attach cable trays to block walls.

These brackets provide mechanical support and allow for horizontal or vertical routing changes. Fasteners: Use anchors or bolts suitable for masonry, such as expansion anchors or chemical anchors, to secure brackets to the block wall. Ensure the fasteners are rated for the expected load of the cable tray and cables.

Spacing: Standard support spacing for wall-mounted trays typically ranges from 1.2 m to 1.8 m, depending on tray type, width, and load.

For heavy-duty trays, closer spacing may be required to prevent sagging. Load Considerations: Verify the maximum load capacity of the tray and bracket system. For example, ladder trays may support up to 340 kg per hanger, but this depends on the bracket type and wall anchoring.

Alignment and Leveling: Ensure brackets are level and aligned to maintain proper tray slope and prevent cable stress. Use shims or adjustable brackets if necessary.

Additional Considerations

Fire Safety: When mounting on block walls, consider fire-rated anchors and brackets if required by local codes or standards, such as DIN 4102 or the Canadian Electrical Code.

Cable Separation: Maintain proper separation between power and communication cables, and use covers or barriers if needed to prevent interference.

Environmental Protection: For outdoor or corrosive environments, select brackets and trays with appropriate corrosion-resistant finishes, such as galvanized steel or stainless steel.

Changes in Direction: Horizontal or vertical bends, tees, and risers should be supported near joints to maintain structural integrity.

Best Practices

Plan the tray layout with a qualified engineer to ensure compliance with building codes and load requirements. Use pre-fabricated wall brackets and mounting plates to simplify installation and maintain consistent spacing. Inspect block walls for structural integrity before installation, especially in older or hollow block walls.

Consider using dynamic CAD blocks for design and coordination to optimize bracket placement and tray routing. By following these guidelines, cable trays can be safely and efficiently mounted on block walls, ensuring long-term stability, compliance with standards, and ease of cable management.

Article Content

Guide to cable support systems

Examples of support elements include wall and support brackets, suspended supports and centre suspensions. Mounting elements are used to attach or fasten other elements to cable supports and

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INSTALLATION GUIDE

Where metal supports for metal cable trays are bolted to the tray and are in good electrical contact with the grounded structural metal frame of a building, the tray shall be deemed to be bonded to ground.

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GUIDE CABLE TRAYS TECHNICAL

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Cable Tray Technical Guide A practical guide to product selection and ...

Cable Tray Technical Guide A practical guide to product selection and installation This guide for engineers and installers has been developed by ABB as a practical reference regarding cable tray

Cable tray manual

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