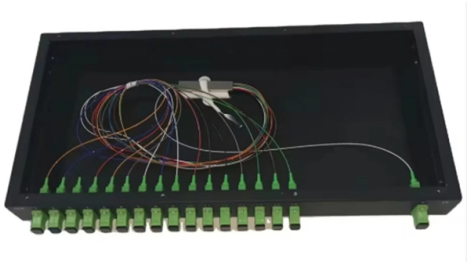
How to make cable tray pipes



Overview

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Key Takeaways

Cable tray pipes are fabricated by cutting, bending, assembling, and finishing metal sheets to create durable channels for electrical wiring.Material Selection

Cable trays are typically made from stainless steel, galvanized steel, aluminum, or fiberglass composites depending on the environment and load requirements. Stainless steel and aluminum are common for corrosion resistance, while fiberglass is used in chemical or offshore environments for non-conductive properties ( ).

Fabrication Process
• Cutting: Start by cutting sheet metal to the required dimensions for the tray width, height, and length ( ).

• Punching or Slotting: Create slots or holes along the tray for cable access, ventilation, and attachment points for clamps or ties ( ).

• Bending: Use press brakes or bending machines to form the edges and shape the tray into a channel or ladder configuration ( ).

• Welding or Fastening: Weld joints for strength or use mechanical fasteners to assemble sections, ensuring structural integrity ( ).

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• Surface Treatment: Apply galvanization, powder coating, or other protective finishes to prevent corrosion and extend the tray's lifespan ( ).
Assembly and Installation
• Fittings: Use elbows, tees, crosses, and reducers to create complex layouts and maintain continuous cable support ( ).

• Supports: Install center-hung or side-mounted supports at recommended intervals (typically 3.6 m maximum) to maintain load capacity and stability ( ).

• Routing: Plan the cable path carefully, considering building codes, equipment placement, and clearance requirements. Use CAD or routing software for precise layouts ( ).
Safety and Quality Considerations
• Ensure edges are smooth to prevent cable damage.

• Follow local electrical codes and standards for load capacity and installation.

• Qualified personnel should handle installation to avoid injury or property damage ( ). By following these steps, you can produce durable, functional cable tray pipes suitable for organizing and protecting electrical wiring in industrial, commercial, or residential projects.

Article Content

Cable trays in AutoCAD | CAD download (970.3 KB) | Bibliocad

Tray installation details for the location of a project''s electrical wiring; in addition to blocks with different angles that allow the wiring

Related Video Reference

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