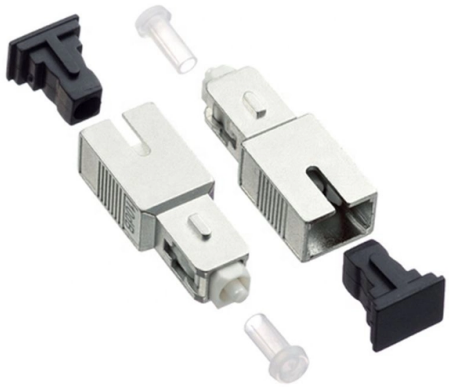
Fabrication of Side Bends in Cable Trays



Overview

Trunking Cutting Techniques Guide | PDF | Metalworking | ToolsThe document provides instructions for forming various bends and joints in electrical trunkin.

Key Takeaways

Side bends on cable trays are fabricated by cutting, forming, and rejoining tray sections, then installed using bolts or welding to maintain structural integrity and proper cable routing.

Materials and Tools Required

Materials: Galvanized sheet or perforated cable tray (1. 6 mm or as per design), metal strips for reinforcement, nuts, bolts, washers, and optional welding rods. Tools: Measuring tape, marker or scriber, angle grinder or metal shear, drill machine, rivets or bolts, bending tools (manual or hydraulic press brake), welding machine (optional), and protective equipment like gloves and eye protection.

Fabrication Steps

Marking the Bend Angle: Determine the required bend angle (commonly 45° or 90°). Mark the centerline and sides of the tray, dividing the curve into equal segments to ensure a smooth radius. Cutting the Side Walls: Cut triangular or rectangular sections on the side walls where the bend is needed.

These cuts allow the tray to fold without deforming the structure. Forming the Bend: Gradually bend each segment using a manual bender or press brake. Ensure uniform bending to maintain cable support and tray integrity.

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Rejoining the Side Walls: After bending, rejoin the cut sections using welding or bolting/riveting with metal strips for reinforcement. Drilling Connection Holes: Drill holes at each end of the bend to connect it to straight tray sections using high-tensile bolts and washers.

Installation Guidelines

Support Structure: Fabricate and install MS support structures (angles or C-channels) at regular intervals (typically 1 meter) to support the tray and bends. Mounting the Bend: Position the fabricated bend on the support structure and secure it using bolts or welds, ensuring alignment with the straight tray sections. Isolation and Protection: Use insulating sheets (e.g., G-10 or FRP) at supports to prevent electrical contact and protect cables.

Wire Mesh Tray Bends: For wire mesh trays, bends can be made on-site using bolt cutters, with protective caps applied to cut ends to maintain corrosion protection.

Best Practices

Maintain the minimum bend radius recommended for the cable type to prevent damage. Ensure uniform spacing and alignment to avoid cable sagging or stress. Always follow safety standards and use personal protective equipment during cutting, bending, and welding.

Verify that all bends and joints are secure and properly reinforced before cable installation. By following these steps, side bends can be fabricated and installed efficiently, ensuring smooth cable routing, structural stability, and compliance with electrical installation standards.

Article Content

Trunking Cutting Techniques Guide | PDF | Metalworking | Tools

The document provides instructions for forming various bends and joints in electrical trunking and cable trays. It describes: 1) How to mark and cut a right-angle internal bend in a section of trunking,

How to fabrication 200 mm cable tray bend

Forming the Bend: Use a manual bender or press brake to bend each section slightly to form the required curve. Ensure uniform bending to maintain the tray''s integrity and cable support.

Perfect Ladder Cable Tray Bending | Professional Fabrication

Watch how a professional fabricator bends a ladder cable tray with precision using the right tools and expert techniques. This step-by-step fabrication process shows how cable trays are...

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How to Create Bends in Wire Mesh Cable Trays (Step-by-Step Guide)

Creating bends in wire mesh cable trays is simple, fast, and cost-effective when done correctly. With proper cutting and bending techniques, you can achieve professional cable routing without additional

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

In designing supports for a cable tray system, consideration should be given to the loads associated with future cable additions and any additional loading that may be applied to the cable tray system (e.g.,

Assembly Guide

The assembly guide below will help the cable tray installer make the bends and others without difficulty even he had never installed wire mesh cable trays before.

Cable Tray Bend and Offset Formulas | PDF | Galvanization | Screw

The document discusses Metstrut cable tray systems, including their configuration, materials, dimensions, and compliance with industry standards. Key points: - Cable trays have integral

cable tray fabrication guide

The purpose of this article is to define the sequence and methodology for the installation of electrical cable trays, cable trunking, cable raceways and boxes, junction and pull boxes.

How to construct a flat 90° bend for Cable Trays

Construction of a flat 90° bend (G) The gusset is produced by cutting a piece of tray to the required size, removing 1 lip completely and bolting it to the 90° bend (H). This completes the 90° bend.

Working with EzyTrays

EzyStrut offers useful product installation and fabrication information for their range of EzyTray cable tray products.

Catalog Cable Tray Ver Final

Cable Ladders Straight sections of ladder type cable trays consist of two longitudinal side rails, connected by individual transverse members, or rungs, which are welded to the side rails or

SWIFTS CABLE TRAY

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Fit faster. Save money. As with all Legrand cable management systems, Swifts cable tray is a complete system with a range of accessories – all packed with innovative features that lower the total cost of

Cable Tray Installation 211215 | PPTX

The document provides information about cable tray systems, including: - The six main types of cable trays: ladder, solid bottom, trough, channel, wire mesh, and single rail. - The materials cable trays

CABLE MANAGEMENT SYSTEMS CABLE TRAYS

Fiberglass Reinforced Plastic (FRP) Cable Tray / Ladder SFSP Fiberglass Reinforced Plastic (FRP) Cable Management Systems are designed, manufactured, and tested to be installed in most harsh

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 CABLE TRAY

3 4 5 Alternatively, most trays can be hot dip galvanized after fabrication to provide a long, corrosion resistant service life even when d outside. Depending on the design of the tray, you either use pre

Document DICOS

single-rail cable tray: A fabricated structure consisting of a longitudinal rail with transversely connected Members (rungs) that project from one side (side-supported) or both sides (center-supported), which

Fiberglass Cable Tray

Looking for durable and corrosion-resistant Fiberglass Cable Tray? Our lightweight, high-strength trays offer long-lasting performance. Order now!

Related Video Reference

This video was associated with the source search result. Verify technical details against current product documentation and project requirements.

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This document is for preliminary research. Verify specifications against current standards, product documentation and project requirements.

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