

Method for making bends in trapezoidal cable trays

Article Overview

Bends in trapezoidal cable trays are fabricated by marking, cutting, bending, and rejoining tray sections using appropriate tools and safety measures.

Tools and Materials Required

- o Galvanized sheet metal (typically 1.6 mm or as per design)
- o Measuring tape, marker, or scribe
- o Angle grinder, metal shear, or band saw for cutting
- o Drill machine for connection holes
- o Rivets, nuts, and bolts for assembly
- o Manual or hydraulic press brake for bending
- o Welding machine (optional for reinforcement)
- o Personal protective equipment (Kevlar gloves, eye protection, footwear)

Steps for Fabricating Various Bends

1. Simple Bends (45° or 90°)

- o Mark the bend location and angle on the tray.
- o Cut triangular or rectangular sections on the side walls to allow smooth bending.
- o Use a press brake or manual bender to form the curve gradually, ensuring uniformity.
- o Rejoin the cut sections using welding or bolting with metal strips for reinforcement.
- o Drill holes at the ends for connecting to straight tray sections .

2. Tee Junctions

- o Mark the junction location on the main tray.
- o Cut an opening sized for the junction piece.
- o Insert the junction and secure it with bolts or rivets .

3. Double Bends and Saddle Sets

- o For double bends, mark two bend points and bend sequentially, maintaining correct angles and spacing.
- o Saddle sets require four bends; measure distances between bends carefully and form each bend using a bending machine or spring .

4. On-Site Adjustments

- o Wire mesh or modular trays can be bent live at the project using bolt cutters or bending tools. Protective zinc layers and rubber caps help maintain corrosion resistance and safety .

Cutting and Safety Considerations

- o Use band saws or angle grinders for cutting; avoid torches to prevent material weakening.
- o Remove burrs after cutting to prevent injury and ensure smooth cable support .

Method for making bends in trapezoidal cable trays

- o Avoid mixing cutting blades between stainless steel and carbon steel to prevent galvanic corrosion.
- o Always wear PPE and follow local HSE regulations during fabrication .

Best Practices

- o Ensure bends maintain the tray's structural integrity and cable support.
- o Follow manufacturer guidelines and standards such as BS EN 61537 for cable trays .
- o Verify angles and dimensions before final assembly to ensure proper alignment and fit. By following these steps, various bends in trapezoidal cable trays can be fabricated safely and efficiently, ensuring smooth cable routing and compliance with installation standards.

This video shows you how easily, you can form and bend a wire mesh cable tray from

Cable trays are systems that distribute bundles of insulated electrical cables from power supplies to electrical equipment, consisting

The document discusses Metstrut cable tray systems, including their configuration, materials, dimensions, and compliance with

90°; Cable Tray Bend Installation Guide The document provides instructions for the installation of 90°; short radius bends for wire

How to bend 22.5 degree of cable tray 3 layer with the same distance and gap o HOW

The document provides instructions for forming various bends and joints in electrical trunking and cable trays. It describes: 1) How to

CABLE TRAY CUTTING & BENDING GUIDES CONFIGURING CABLE TRAYS FOR INSTALLATION 90°; Short Radius Bends

This is a step by set guide on how to make (fabricate) a 90 degree bend in metal cable tray and use a cable tray bending machine to

Bending Cable Tray - NO Fancy Tools Required Students trading aid on how best to put

Typical examples of fittings include elbows, tees, crosses, and risers. Each of these fittings are available in various radii and bend

Method for making bends in trapezoidal cable trays

You can buy a manufactured 90 degree bend or make one on a cable tray bending machine but in this video I show

Tips and techniques for electrical apprentices learning how to industrial wiring systems such as steel conduit, trunking and cable tray.

Creating bends in wire mesh cable trays is simple, fast, and cost-effective when done correctly. With proper cutting and bending

This video shows you how easy it is to form and bend an open cable tray from SILTEC -

Learn the complete Cable Tray Bending Radius: Minimum Bend Formula & Calculation Guide with practical formulas,

Learn common methods for connecting cable trays safely and efficiently. Our guide covers

Web: <https://morwarreconst.co.za>

