

Laying out the inner bend of the cable tray bend



Overview

The document provides instructions for forming various bends and joints in electrical trunking and cable trays.

Key Takeaways

To lay out the inner bend of a cable tray, mark the bend line, determine the correct bending radius, and use appropriate tools to gradually form the internal curve without damaging the tray or cables.

1. Determine the Bend Angle and Radius

- Identify the required bend angle, commonly 90° for internal corners.
 - Check the cable tray manufacturer's specifications for the minimum bending radius, which ensures cables will not be stressed or damaged during installation.
- #### 2. Mark the Bend Line
- Measure and mark the inner edge of the tray where the bend will start.
 - Use a straight edge or template to ensure accuracy. For multi-layer trays, mark each layer consistently.
- #### 3. Prepare the Tray for Bending
- For steel or wire mesh trays, you can use a bending machine, a metal bar, or a bolt cutter for wire mesh trays to create live bends on-site.

- Ensure the tray is supported on a flat surface to prevent deformation. 4. Form the Inner Bend
- Gradually lift and bend the tray along the marked line, keeping the inner radius smooth. Avoid sharp kinks that could damage cables or reduce structural integrity .
- For wire mesh trays, bend each side evenly to maintain alignment and spacing. Rubber caps or protective coatings can prevent damage to cut or bent edges . 5. Check Alignment and Fit
- After bending, verify that the tray aligns with the intended path and that the bend allows sufficient space for cable installation.
- Adjust slightly if necessary, ensuring the bend radius meets the minimum requirement for the cables being installed . 6. Safety and Best Practices
- Always wear protective gloves and eye protection when bending metal trays.
- Avoid using excessive force, which can deform the tray or compromise its load-bearing capacity.
- Follow manufacturer guidelines and standards such as BS EN 61537 for cable tray systems . By following these steps, you can create a precise and safe inner bend in a cable tray, ensuring proper cable support and long-term reliability.

Article Content

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Cable Tray Bend Calculator | Arc, Chord & Offset Length

Calculate cable tray bend dimensions, centerline arc lengths, setback distances, and offset configurations. Ensure compliance with

Assembly Guide

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

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Assembly Guide The bends, tees, crosses, risers and reducers of wire mesh cable tray can be easily and quickly made live at the

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