

Making a cable tray at a 30-degree angle

Article Overview

To make a 30-degree cable tray bend, calculate the cut dimensions using the tray width and angle, then bend or offset the tray according to the calculated measurements for a smooth installation.

Step 1: Determine the Tray Width and Angle

Identify the width of your cable tray and confirm that you need a 30-degree bend. This angle is commonly used for smoother cable paths, especially for fiber optic cables, and reduces stress on the cables compared to sharper angles .

Step 2: Calculate the Cut-Out Section

Use the formula: Cut-out size (D) = Tray width x Angle multiplier For example, for a 50 mm wide tray: $50 \times 0.44 = 22$ mm cut on each side . Other common tray widths and cut sizes:

- o 100 mm tray -> 26 mm cut
- o 150 mm tray -> 40 mm cut
- o 200 mm tray -> 53 mm cut
- o 250 mm tray -> 66 mm cut
- o 300 mm tray -> 80 mm cut This ensures the tray bends accurately to 30 degrees without deforming the structure .

Step 3: Mark and Cut the Tray

- o Mark the calculated cut dimensions on the inside of the tray.
- o For wire mesh trays, cut the bottom and inside side wires only, leaving the outside intact to maintain structural integrity .
- o Use appropriate tools such as a bolt cutter for wire trays or a metal saw for solid trays .

Step 4: Bend the Tray

- o After cutting, pull the inside edges together to form the 30-degree angle.
- o For ladder or solid trays, use a bending brake or manual bending with supports.
- o Ensure the bend is smooth to avoid sharp corners that could damage cables .

Step 5: Install and Support

- o Place the bent tray in position, ensuring tangent sections are long enough for splice plates and supports .

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- o For offsets over obstacles, calculate the developed length: the total tray length needed for the rise, cross, and return sections. A 30-degree offset requires more run length than a 45-degree bend but provides a gentler path for cables .
- o Secure the tray with clamps or brackets, leaving room for future maintenance.

Tips

- o For fiber optic cables, 30-degree bends are preferred due to low bend radius requirements .
- o Always double-check measurements before cutting to avoid wasting material.
- o When making multiple bends, calculate each cut individually and test-fit before final installation . By following these steps, you can create a precise 30-degree cable tray bend that maintains cable integrity and fits neatly around obstacles.

What is the Cable Tray Slope & Fabrication Calculator? The Cable Tray Slope & Fabrication Calculator is a field-ready tool for

How to make cable tray bend / Cable tray offset formula / cable tray 45 degree

How to Master back of bend measurements on electrical Cable Tray. Make a 90

Easy step to making cable tray offset bend 30 degrees at a distance of 150 mm +150 mm = 300mm.

Includes a full demonstration on how bend steel cable tray using a crimping to. You can

M - Large cable drop-out of wire basket tray. The large cable drop-out is ideally suited for use with Category 5
a When attaching the

Guide for making bends, tees, crosses, risers and reducers from straight sections of wire basket cable trays live at the project.

1.38K subscribers 559 141K views 12 years ago How to fabricate a swept 90 degree

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

The document outlines codes and standards that must be followed for design and construction of cable trays and their components.

Hi Would someone kindly let me know the formula to create a flat 45 in say 100 mm cable tray for example.

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So I can

Vertical offsets seem pretty self explanatory, but I'd love some feedback. there are cable tray prefabbed with angles in them. Like

hello, i am trying to learn how to accurately measure and cut cable tray and trunking to be able to fabricate my own

<https://youtu.be/FqKxvg8zIoM> Easy step to make 30 degree offset

He is going to show you how to use EzyStrut's ET/ET3/ET5 Radius plate to create a 90

Keywords: cable tray 90 degree bend,bend cable tray,marking cuts for cable

Web: <https://www.millstraining.co.za>

