

How to cut cable tray elbows

Article Overview

Cutting cable tray materials for elbows requires precise measurement, proper tools, and adherence to safety guidelines to ensure accurate bends and maintain structural integrity.

Step 1: Measure and Mark

Begin by measuring the cable tray dimensions and determining the type of elbow needed (e.g., 45° or 90°). For a 90° bend, you can create it using two 45° cuts or by rolling/bending the tray along its centerline. Mark the cut lines clearly using a marker or chalk, ensuring perpendicular alignment to the tray edges for accuracy .

Step 2: Choose the Right Cutting Tool

Select a cutting tool based on the tray material and thickness:

- o Band saws: Ideal for low-height, thin metal trays; provide clean cuts with minimal burrs .
- o Circular saws: Suitable for light channels and ladders; cordless options like Hilti SCM 22-A offer precision and safety features .
- o Angle grinders: Offer flexibility for on-site cuts but require careful handling due to sparks and potential injury .
- o Avoid torches: Cutting with torches can damage surface treatments and weaken the material .

Step 3: Cutting Technique

For mitered 90° elbows:

- o Cut two straight pieces at 45° angles.
- o Join them to form the 90° bend. For rolled or bent elbows:
- o Calculate the arc length along the tray's centerline ($\frac{1}{4}$ circle for 90°).
- o Cut the material to the required developed length, considering tray width if needed . For precise horizontal or vertical bends, you can use the formula for isosceles triangles: $L = 2 \times (\text{tray height} \times \sin 22.5^\circ)$ This helps determine the base length for cutting triangles that form the bend .

Step 4: Safety Precautions

- o Wear Kevlar gloves, safety glasses, and protective footwear to prevent injuries from sharp edges .
- o Protect surrounding materials from sparks and overheating during cutting .
- o Do not mix cutting blades between stainless steel and carbon steel to avoid galvanic corrosion .

Step 5: Finishing

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After cutting, deburr edges if necessary to prevent cable damage. Check alignment and fit before installation to ensure the elbow maintains the tray's structural integrity . By following these steps, you can accurately cut and fabricate cable tray elbows while maintaining safety and compliance with industry standards.

Cable Tray Installation Method Statement 1. Cable Tray Installation Cable trays should be installed in accordance with the latest

16.6K subscribers 468 20K views 5 years ago 90° vertical inside elbow cable tray

These trays help manage cable routing in commercial, industrial, and data center

How to make a 90 electrical cable tray bend to measurement of your choice. Great if you

Cutting cable tray for elbow #cabletray #cableladder Jun Sulapas 84 subscribers Subscribe

Angle all cuts away from the new end. Cut each wire with one clean cut - eliminating any grinding or touch-up. Cut the bottom wires

CUTTING GUIDELINE How to cut Oglaend System Support Channels, Cable Ladders and Cable Trays.

1. FIELD CUT CABLE TRAY LENGTH AS REQUIRED. 2. INTERMEDIATE SUPPORT FOR UPPER TRAY REQUIRED ON

This video shows metal fabrication techniques, DIY cable tray projects, and tips for perfect bends and joints.

In the Oglaend System Cutting Guideline you can easily find out what the optimal cutting lengths/intervals are for all

Vertical outside elbow 90°(45°;-45°) 50mm depth cable tray. Practical tutorial 5

I worked with cable tray about 40 years ago and remember I created a couple of simple formulae to work out how

Developed by Interstates, this cable tray cutting guide acts as a guide for a metal cutting

35.3K subscribers 723 61K views 5 years ago #90DEGREE #CABLETRAY #OF #3V

Cable Tray Installation Details The document contains engineering drawings showing dimensions and details

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for an elbow cable tray

When a wire cable tray is cut, the fact that a wire has been cut does not affect the level of protection. Let alone we have rubber caps

Web: <https://in-au.co.za>

