

Table of Dimensions and Specifications for Horizontal Elbows in Cable Trays



Overview

Horizontal elbows provide directional transitions in cable tray systems, with 4"-7" rail heights, 6"-36" widths, and 12"-36" radii.

Key Takeaways

Horizontal elbows for cable trays typically come in standard radii of 12", 24", and 36", with side rail widths and splice plate configurations varying according to NEMA class. Radius and Bend

Horizontal elbows are designed to change the direction of cable trays smoothly. The standard bend radii commonly available are 12 inches, 24 inches, and 36 inches, which accommodate different cable fill and bending requirements. These radii ensure minimal stress on cables while maintaining proper routing.

Side Rail Width and NEMA Class Compatibility

Horizontal elbows are manufactured to match the side rail widths of the corresponding cable tray systems, which are classified according to NEMA standards:

- Class 1: For NEMA 12B and 12C trays, side rail width is 1 1/8" with 4-hole splice plates.
- Class 2: For NEMA 20A, 20B, and 20C trays, side rail width is 2" with 4-hole splice plates.

- Class 3: For NEMA classes exceeding 20C, side rail width is 2 3/8" with 8-hole splice plates .
- Class 4: For heavy-duty trays (e.g., 8" high A820E system), side rail width is 2 3/4" with 8-hole heavy-duty splice plates .

Material and Construction

Horizontal elbows are typically fabricated from prime quality sheet steel and may be hot-dip galvanized, powder-coated, or bare galvanized, depending on environmental and load requirements . They are designed to maintain the load-bearing capacity of the straight tray sections and comply with NEMA VE 1-3.02 standards .

Summary

When selecting a horizontal elbow for a cable tray system, consider:

- Bend radius: 12", 24", or 36"
- Side rail width: matched to NEMA class (1 1/8" to 2 3/4")
- Splice plate configuration: 4-hole or 8-hole depending on class
- Material and finish: galvanized or coated steel for durability
- Compatibility: ensure the elbow matches the straight tray section dimensions and load rating . These standard dimensions allow for seamless integration into cable tray systems while maintaining structural integrity and proper cable management.

Article Content

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Contents of cable tray | PDF

The document describes the various types, components, and specifications of cable tray systems manufactured by SR Electrical Co.

NEMA Standards Publication VE 2-2006

4.3.10 Single Rail Cable Tray Fitting Connectors (See Figures 4.21A through 4.21D)
Single rail cable trays typically use connector

Cable Tray Specifications and Accessories

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