

# Cable tray specifications for hanger rods and angle irons

## Article Overview

Cable trays must be supported using properly sized hanger rods or angle irons, spaced according to tray type, load, and applicable standards such as NEMA VE 1 and BS EN 61537.

## Hanger Rods

Hanger rods are vertical supports used to suspend cable trays from ceilings or structural members. Key specifications include:

- o Material: Typically steel, stainless steel, or galvanized steel to resist corrosion and provide adequate strength .
- o Diameter: Commonly 10-12 mm (3/8-1/2 inch) for standard loads; larger diameters may be required for heavy-duty trays or long spans .
- o Spacing: Maximum spacing depends on tray type and load:
  - o Ladder-type trays: 1.5-3 meters (5-10 feet) between hangers.
  - o Solid-bottom or trough-type trays: 1-2 meters (3-6 feet) between hangers .
- o Attachment: Hanger rods are connected to the tray using clamps, brackets, or threaded inserts, ensuring secure load transfer without damaging the tray .

## Angle Irons

Angle irons are horizontal or vertical support members used to mount trays to walls, beams, or other structures:

- o Material: Steel or stainless steel, often hot-dip galvanized for corrosion protection .
- o Dimensions: Common sizes range from 40x40x4 mm to 50x50x6 mm, depending on tray width and load .
- o Mounting: Angle irons can be used as wall brackets, ceiling supports, or cross members. They are typically bolted or welded to structural elements and provide a stable base for tray attachment .
- o Spacing: Similar to hanger rods, spacing is determined by tray type, load, and span. For heavy cable loads, closer spacing is recommended to prevent sagging .

## Compliance and Standards

- o NEMA VE 1: Defines metallic cable tray systems, including load ratings, material specifications, and installation practices .
- o NEC Article 392: Covers installation requirements for cable trays in the United States, including support

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intervals and grounding .

- o BS EN 61537: European standard for cable management systems, specifying mechanical and environmental requirements .
- o UL and NFPA Compliance: Ensure that trays, hangers, and fittings are UL-listed and meet NFPA 70B recommendations for electrical equipment maintenance .

## Practical Recommendations

- o Always use manufacturer-approved components for hangers, brackets, and angle irons to maintain system integrity .
  - o Verify load ratings for both the tray and support elements, considering cable weight and potential short-circuit forces .
  - o Maintain proper alignment and level to prevent cable stress and ensure safe routing.
  - o For long spans or heavy loads, consider intermediate supports or reinforced angle irons to reduce deflection .
- By following these specifications, cable tray systems can be safely and efficiently installed, providing reliable support for electrical and communication cables while complying with relevant standards.

This standard defines configurations for the mechanical tests to be performed on cable trays, brackets, hangers and other

Some applications may require the cable tray to support the weight of a single, dead object in addition to the cable loads.

I'm in the process of determining a method of repair or replacement for existing corroded angles supporting three

The National Electrical Manufacturers Association (NEMA VE-1) USA, classifications for Cable Trays were established to simplify

Angle iron with lengthwise/longitudinal slots 7x30mm on one side for universal support. Can be used to support cable trays, cable

NEMA VE 1-2017 Specifies requirements for metal cable trays and associated fittings designed for use in accordance with the rules

A cable tray system is an assembly of metallic cable tray sections and accessories, that forms a rigid structural system

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Angles are continuously slotted to hold down Husky Trough using HB-1 bolts, and can be used to support all tray types with 1/2"

Study with Quizlet and memorize flashcards containing terms like direct Rod suspension, 18 in, dedicated cable tray and more.

These guidelines will be particularly useful for the design, specification, procurement, installation and maintenance of these systems.

Cable trays are not raceways, but they are treated as a structural component of a facility's electrical system. Cable trays are a part of

All cable trays are manufactured in accordance with the NEMA standard publication VE 1-3.02 1979, TITLED "Cable

Swage Ladder & Trof Tray - Single Rod Hanger Support Center-hung cable tray support kit comes with all the necessary

Our Snap Track single hanger brackets & channel hangers are used for overhead or beam mounting when installed with a beam

NEMA Standards Publication VE 2-2006 Cable Tray Installation Guidelines Published by: National Electrical Manufacturers

Discover efficient cable tray support structures for optimal cable management. Learn about

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