

Cable tray steel strip material



Overview

Complete Guide to Metal Cable Tray Materials in Steel cable trays are among the most popular choices due to their strength and Steel Cable Tray Steel Cable.

Key Takeaways

Steel cable trays are commonly made from pre-galvanized, hot-dip galvanized, or stainless steel, offering durability, corrosion resistance, and suitability for indoor and outdoor applications. Types of Steel Used

Steel cable trays are typically manufactured from strip steel, which is formed into trays with various heights, widths, and configurations. The main types include:

- Pre-galvanized steel: Steel coated with zinc before fabrication, providing basic corrosion resistance suitable for indoor or mildly corrosive environments .
- Hot-dip galvanized steel: Steel dipped in molten zinc after fabrication, offering superior corrosion protection, especially for outdoor or industrial environments .
- Stainless steel (AISI 316L or similar): Contains chromium and molybdenum, providing excellent resistance to corrosion, including in marine or highly corrosive environments .

Finishes and Protection

The choice of finish affects the tray's longevity and maintenance requirements:

- Electro-galvanized: Thin zinc coating, suitable for light-duty applications.

- Hot-dip galvanized: Thicker zinc layer, sacrificially protects steel even if scratched, ideal for heavy-duty or outdoor use .

- Stainless steel: Naturally forms a protective oxide layer, highly resistant to pitting and stress corrosion .

Design Considerations

Steel cable trays are designed with features such as:

- Side return flanges for increased load capacity and cable protection .
- Slot patterns for easy cable tie placement and ventilation.
- Variety of heights and widths to accommodate different cable loads, typically ranging from 50 mm to 600 mm in width and 50 mm to 100 mm in height, with custom sizes available .
- Double return flanges to prevent cable damage and improve structural integrity .

Standards and Compliance

Steel cable trays are manufactured to comply with international standards such as BS EN 61537:2023, NEMA, and cabling standards like CENELEC EN 50173-1 and ISO/IEC 11801-1:2017, ensuring safety, reliability, and compatibility with electrical installations .

Applications

- Industrial and commercial buildings: For heavy-duty cable routing.
- Outdoor and marine environments: Hot-dip galvanized or stainless steel trays resist corrosion.
- Future-proofing: Steel trays can accommodate increased cable loads, typically designed with a 25% margin for future expansion . Choosing the correct strip steel material and finish ensures long-term durability, corrosion resistance, and safe cable management in the intended environment.

Article Content

Steel Cable Tray

Steel Cable Tray Steel Cable Tray systems are Certified CSA Cable Tray, UL listed, and NEMA certified

Barrier Strip

Barriers help separate parallel runs of cables within a cable tray. Whether it is for EMI mitigation or simple

Engineered Cable Trays for Data Centers| Marlin Steel

Every tray is made in the USA using 100% domestically sourced steel, ensuring superior tensile strength

Full cable tray systems specification document

Stainless Steel: Straight section and fitting side rails and rungs shall be made of AISI Type 304 or Type 316 stainless steel.

Cable Trays | McMaster-Carr

Choose from our selection of cable trays, including over 850 products in a wide range of styles and sizes. Same and Next Day Delivery.

Comparing Electrical Cable Tray Materials-Aluminium, Steel, Plastic

Aluminium, steel, or plastic? Compare key features of electrical cable tray materials to find perfect match for your

Cable Tray & Accessories

Cable Tray, 2" Depth x 4" Width x 10" Section, Material: Carbon Steel. Finish: Electroplated Zinc.

Cable Trays and Accesories

SFSP manufactures a wide range of products capable of providing the characteristics which respond to the proposed application,

Cable Tray And Fittings | Graybar Store

A cable tray system is used to support insulated electrical cables used for power distribution, control, and communication. Cable

Cable Tray: Material Properties

Basic components of steel cable trays are normally fabricated from either hot or cold rolled carbon steel strips of commercial quality.

What Is A Cable Tray? 5 Types Of Cable Trays

A cable tray is a structural system used to support and manage electrical cables in various settings, such as industrial, commercial,

B-Line series Cable Tray Design Considerations

As an industry leader in cable tray, Eaton offers one of the widest ranges of cable management solutions available in the market

Cable Tray | Wire Mesh, Ladder Tray and More Wire Management

The trays are made from high-quality materials, such as galvanized steel or PVC, which are resistant to corrosion and other

Types of Cable Trays: Ladder, Perforated, Basket, Solid & Channel

Cable trays support insulated electrical cables in industrial and commercial settings. There are several types of cable

Practices for grounding and bonding of cable trays

Grounding and bonding of cable trays There are three wiring options for providing an EGC in

Full cable tray systems specification document

B. Cable tray systems are defined to include, but are not limited to straight sections of [ladder type] [trough type] [solid bottom type]

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Grommet Strip | Tidy Cable Pass Through | CEF

Grommet Strip Grommet strips provide a practical solution for protecting cables as they pass through sharp or rough edges. Made

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