Specifications and Models of Round Steel for Cable Trays

Article Overview

Round steel cable trays are available in various materials, finishes, and dimensions, designed to meet international standards for load-bearing and corrosion resistance.

Materials and Steel Types

Round steel cable trays are manufactured using several types of steel to suit different environments:

o Pre-Galvanized Steel: Economical, meets ASTM A653 standards with G90 coating for corrosion protection .
o Hot-Dip Galvanized Steel: Provides enhanced corrosion resistance, compliant with ASTM A123 .
o Stainless Steel: Types 304, 316, and 316L are used for high corrosion resistance, especially in aggressive environments .
o Alu-Zinc + Magnesium Coated Steel: Offers self-healing properties on cut edges and excellent corrosion resistance .
o HRCA (Hot Rolled Close Annealed) and CRCA (Cold Rolled Close Annealed): Conform to IS2062 and IS513 standards, respectively, for structural strength .

Finishes

Steel cable trays can have various finishes depending on environmental requirements:

o Powder-coated for additional protection and aesthetics.
o Hot-dip galvanization for industrial and outdoor applications.
o Stainless steel polished or passivated for chemical or marine environments .

Dimensions and Models

Round steel cable trays are available in multiple sizes to accommodate different cable loads:

o Widths: Typically range from 50 mm to 900 mm .
o Depths: Commonly 12 mm, 18 mm, 25 mm, 50 mm, and up to 750 mm for heavy-duty applications .
o Lengths: Standard lengths are usually 2-4 meters, with custom lengths available.
o Profiles: Round steel trays often feature rolled flanges for stability and round holes for threaded rod mounting .

Standards and Compliance

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Round steel cable trays are designed according to both national and international standards:

o Indian Standards (IS) and CPR for local compliance.
o NEMA VE1/VE2 and IEC 61537 for international quality and installation guidelines .
o ASTM standards for steel quality and galvanization, including ASTM A653, A123, A1011, and A1008 .

Accessories and Configurations

Cable tray systems include a variety of accessories to support complex layouts:

o Bends: Horizontal, vertical (45? and 90?), and cross bends.
o Reducers: Left, right, and equal reducers.
o Tees and Extensions: For branching and extending tray runs.
o Covers: Snap-on or conventional covers for protection .

Key Considerations

When selecting round steel cable trays:

o Choose the material and finish based on environmental exposure (e.g., indoor, outdoor, chemical exposure).
o Verify load-bearing capacity and span length according to cable weight.
o Ensure compatibility with accessories for bends, tees, and reducers.
o Confirm compliance with relevant standards for safety and durability . Round steel cable trays provide a robust, versatile solution for industrial and commercial cable management, offering high strength, corrosion resistance, and flexibility in layout design.

1.0 SCOPE This technical specification covers the requirements of design, manufacture, testing at works, packing and dispatch of

Eaton

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

Construct units with rounded edges and smooth surfaces; in compliance with applicable standards; and with the following additional

Description: This product category covers metal cable trays and metal cable tray systems intended for field

assembly and for use in

The Ladder Tray features light, rugged, tubular steel construction. It is designed for mechanical support and strain relief in long runs

Explore the types of cable trays, their advantages, applications, and standard sizes. Learn how they improve cable

standards & specifications light & medium duty cable tray sizes essories do not have a return edge. Also light duty tray of widths

Cable Trays and Accessories are designed to meet most requeriments of cable and electrical wire installations and comply to local

3.1 Cable trays & accessories shall be of two types, namely ladder type and perforated type. Technical particulars are specified in

The document is a compliance statement for cable trays being used on a construction project. It lists the project details and 14

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With over 20 years of experience T& B Cable Tray provides a complete solution in cable management systems including design,

Build a cable management system with Cablofil wire mesh cable tray, ladder cable tray, prefab assemblies for branch circuit wiring,

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