

Chilean Aluminum Galvanized Cable Tray Models and Specifications

Article Overview

Aluminum-galvanized cable trays are designed for corrosion resistance, structural strength, and compliance with NEMA/CSA standards, suitable for Chilean electrical installations.

Material and Construction

Aluminum Cable Trays: Made from high-strength aluminum alloys, these trays offer excellent corrosion resistance due to a natural oxide layer (alumina) that protects against atmospheric agents. Extruded I-beam side rails with welded rungs provide structural integrity, with nominal heights ranging from 4 to 8 inches and loading heights from 3 to 7 inches. Rungs are designed for easy mounting of cable ties and clamps, and all edges are rounded to prevent cable damage . **Galvanized Steel Cable Trays:** Hot-dip or pre-galvanized steel trays are coated with zinc to resist corrosion. They comply with ASTM standards such as A123 (zinc coatings), A653 (structural galvanized steel), and A1008/A1011 (cold-rolled and hot-rolled steel). Galvanized trays are suitable for environments where aluminum may not be preferred, offering durability and cost-effectiveness .

Load Ratings and Standards

Cable trays are classified according to NEMA VE 1 and CSA load/span designations. Aluminum trays typically include a 1.5 safety factor and can support an additional 200 lb concentrated load beyond the published load class. Maximum open spacing between rungs is 102 mm (4 inches) to ensure proper cable support . Galvanized steel trays follow similar NEMA and NFPA 70 compliance for ladder, trough, and solid-bottom types .

Design and Installation

- o Tray Types: Ladder, trough, solid-bottom, and channel types are available.
- o Accessories: Splice plates, bends, tees, elbows, drop-outs, and supports are included for complete assembly .
- o Ventilation: Aluminum trays may have ventilated bottoms using up to 75% of the plan area to allow airflow while supporting cables .
- o Mounting: Snap-in splice plates and reversed rungs facilitate top or bottom mounting of cable ties and clamps .
- o Environmental Selection: Material choice depends on exposure conditions, such as humidity, chemical agents, or coastal environments, which is critical for Chilean installations .

Corrosion Resistance



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- o Aluminum: Naturally forms a protective oxide layer, resistant to pitting and stress corrosion .
- o Galvanized Steel: Zinc coating protects against rust; hot-dip galvanization provides long-term durability in outdoor or industrial environments .

Compliance and Testing

- o Electrical Standards: NFPA 70 (National Electrical Code), UL CCN CYNW listings, and suitability as equipment grounding conductors .
- o Mechanical Standards: NEMA VE 1 for metallic cable tray systems, ASTM standards for material quality and galvanization .
- o Installation Guidelines: NEMA VE 2 provides recommended installation practices, including support spacing, load distribution, and grounding .

Summary

For Chilean projects, aluminum-galvanized cable trays provide a balance of corrosion resistance, mechanical strength, and compliance with international standards. Selection should consider environmental exposure, load requirements, and installation type. Aluminum is preferred for lightweight and highly corrosive environments, while galvanized steel is cost-effective and durable for general industrial use. Proper sizing, NEMA/CSA compliance, and accessory selection ensure safe and efficient cable management .

Eaton B-Line series Engineer-approved equal METAL CABLE TRAYS Description: This product category covers metal cable trays

FDG CABLE TRAY FDG Cable Tray is designed to continuously support cable systems including; Power, Data, and

Introduction to galvanised cable trays Galvanised cable trays have become an indispensable element in

Aluminum Cable Tray systems are lighter than steel cable tray and Certified CSA Cable Tray, UL listed, NEMA and certified.

T&B channel tray systems are fabricated from a corrosion-resistant metal (low-carbon steel, stainless steel or an aluminum alloy) or

Invention Steel Industries LLC provides high-quality cable tray systems designed for secure and efficient cable management. Perfect

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2.05 General: Except as otherwise indicated, provide ventilated metal channel cable trays, of types, classes and sizes indicated with

Browse our T&B galvanized metallic cable tray systems. More adaptable and easier to maintain than conduit pipe,

Aluminum cable tray Straight lengths -- Tray bottom types: ladder, ventilated and solid trough Ladder Extra wide aluminum rungs

This document provides general guidelines for cable trays and their installation. It discusses the different types of

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

Visit our Download Center to access "Download Cable Tray" resources, including detailed manuals, CAD

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The aluminium cable tray weighs approximately half as much as its steel equivalent. Aluminum cable trays do not rust and are highly

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

Heavy duty cable trays and cable ladders are manufactured from pre-galvanized, electro-galvanized, or hot-dipped galvanized sheet

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