

Aluminum Alloy Cable Tray Manufacturing Method



AI Overview

Aluminum alloy cable trays are manufactured through a series of precise steps including decoiling, roll forming, punching, cutting, bending, surface treatment, and quality control to produce durable, corrosion-resistant cable support systems.

Material Selection Aluminum alloy sheets or coils are chosen for their lightweight, corrosion resistance, and electrical conductivity. Typical thickness ranges from 0.6 mm to 3.0 mm depending on load requirements and tray type. Aluminum is preferred in environments where moisture, chemicals, or outdoor exposure could corrode steel trays.

Decoiling and Leveling The aluminum coil is first uncoiled using a hydraulic decoiler and passed through a leveling unit to remove any curvature or stress from the coil. This ensures smooth feeding into the forming line and prevents deformation during production.

Roll Forming The leveled aluminum strip enters a roll forming machine, where it passes through multiple roller stations that gradually shape it into the desired tray profile, such as ladder, perforated, or solid bottom designs. Modern machines allow adjustable forming stations to produce different tray sizes on the same line.

Punching and Slotting Cable trays require ventilation holes, knockouts, and mounting slots. These are created using hydraulic or servo punching systems integrated into the roll forming line. Accurate punching ensures proper cable support, heat dissipation, and ease of installation.

Cutting and Bending After forming and punching, trays are cut to the required length using hydraulic or flying shear systems. Secondary bending operations may be performed on a press brake to achieve specific angles or flanges for installation.

Surface Treatment Aluminum trays may undergo anodizing, powder coating, or painting to enhance corrosion resistance, durability, and aesthetics. Anodizing is particularly common for aluminum, providing a protecti...

Article Content

NB/T 10292-2019: (Aluminum alloy cable tray) (PDF English)

This standard specifies the terms and definitions, classification and marking, requirements, test methods, inspection rules, signs, and use of aluminum alloy cable trays.

Behind the Scenes at an Aluminium Food Tray Factory

Elka Mehr Kimiya is a leading manufacturer of Disposable aluminium Food Containers m Aluminium rods, alloys, conductors, ingots, and wire in the northwest of Iran equipped with cutting

12-SDMS-06

Cable tray straight sections, fitting side rails and rungs made from 6063-T6 aluminum extrusions shall be of heat-treated alloys for further strengthening and shall be copper free suitable for salt laden

Aluminum Cable Tray Manufacture and Installation at Alfazal

Conclusion Aluminum cable tray are an essential component of modern electrical systems, offering numerous benefits such as corrosion resistance, lightweight design, and cost-effectiveness. Alfazal

Aluminum Alloy Cable Tray for Corrosion-Resistant

This article explores the design, benefits, installation practices, and real-world applications of aluminum alloy cable trays, providing actionable

Workstations | Neuvar

Each trolley features durable casters, height-adjustable trays, cable management systems, and easy-clean surfaces. Made from medical-grade materials, these units are engineered for stability, mobility,

Type of Cable Tray Introduction Cable Tray Materials Electrical

Cable Tray Materials: Most cable tray systems are fabricated from a corrosion-resistant metal (low-carbon steel, stainless steel or an aluminium alloy) or from a metal with a corrosion-resistant finish

High-Strength Aluminum Alloy Cable Tray Production Roll Forming

Our Cable Tray Roll Forming Machine is a state-of-the-art, fully integrated production line designed for the high-efficiency manufacturing of various cable support systems, including ladder-type, channel

Alum Alloy Cable Tray Manufacturing and Logistics

Watch how we expertly manufacture and prepare our high-quality aluminum alloy cable trays for delivery. From precise cutting and forming to careful packing a...

CABLE TRAY SYSTEMS GUIDE

Cable Tray Systems Guide HUBBELL Hubbell Wiring Device-Kellems and Hubbell Premise Wiring are divisions of Hubbell Incorporated, a U.S. headquartered manufacturer with over 130 years of

How to Produce Cable Trays: A Comprehensive Guide

Discover the detailed process on how to produce cable trays, covering everything from material selection to assembly and surface treatment.

Cable Tray Technical Guide A practical guide to product selection and ...

The choice of method should be discussed with a local inspector. The best decision may be to extend only the cables, creating a discontinuity in the cable tray.

The Manufacturing Process of Disposable Aluminium Food Trays

The first building block in manufacturing disposable aluminium food trays is the aluminium alloy itself. Most trays are made from special grades of aluminium tailored for food contact, durability,

Aluminum Alloy Cable Tray is Lightweight to Install

Aluminum alloy cable trays have good strength, beautiful appearance, large carrying capacity. Also, they are designed into several patterns such as channel design,

Comparing Electrical Cable Tray Materials-Aluminium,

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

What is Aluminium alloy Cable Tray?

Aluminum alloy cable trays have high corrosion resistance. They are suitable for power plant, chemical plant, petrochemical and other fields, especially suitable for the high corrosion

Cable Tray Manufacturing: A Simple Guide to the Process

Don't worry; this guide covers everything you need to know about the manufacturing process, types of cable trays, and why they are important for any

CableTray Book English

Aluminum cable tray Straight lengths — Tray bottom types: ladder, ventilated and solid trough Ladder Extra wide aluminum rungs are welded to extruded aluminum I-beam side rails. Every second rung is

Aluminum Alloy Cable Tray Manufacturer | Cable Management Systems

Our Aluminum Alloy Cable Tray is developed in-house with reference to the NEMA VE1-1979 Cable Tray Systems standard. Designed with simplicity and durability in mind, it offers outstanding corrosion

Cable Tray Making Machine

A cable tray making machine, also known as a cable tray roll former, is an automated machine that forms metal coil strips into cable tray sections

Aluminum Cable Tray

Aluminum Cable Tray systems are lighter than steel cable tray and Certified CSA Cable Tray, UL listed, NEMA and certified. Because of their lighter weight aluminum cable trays are easier to install than

How to Produce Cable Trays: A Comprehensive Guide

How Are Cable Trays Made? To produce cable trays, manufacturers must carefully select materials, design for load capacity and stability, and

Contact Us

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