

Span of long-span cable trays



AI Overview

Long-span cable trays can typically span 30 to 50 feet (9 to 15 meters) between supports, depending on material, load, and design. Typical Span Ranges

Long-span cable trays are designed for applications requiring fewer supports over long distances while carrying heavy loads. Common span ranges include:

- Steel ladder trays: 30–50 feet (9–15 meters) between supports, suitable for extremely heavy loads.
- Aluminum long-span trays: 40-foot (12.2 meters) straight sections, ideal for industrial and commercial applications such as roadway crossings or pipe bridges.
- FRP (fiberglass reinforced plastic) trays: Large span trays with high load capacity, often used in corrosive or harsh environments.

Material Considerations

- Steel: Hot-dipped galvanized or stainless steel (304/316) for high strength and corrosion resistance.
- Aluminum: Lightweight, high strength-to-weight ratio, corrosion-resistant, often with H-beam side rails for structural support.
- FRP: Resistant to corrosion, heat, and harsh weather, suitable for heavy-duty industrial applications.

Design and Load Factors

Long-span trays reduce the number of supports required, lowering installation costs and simplifying maintenance. Deflection is a key consideration; for example, a 36-inch wide aluminum tray with 12-inch rung spacing has deflection factors that vary with load, and continuous spans can reduce deflection by up to 50%. Tray width typically ranges from 12 to 36 inches, with heights from 60 to 150 mm, depending on the application and load requirements.

Applications

Long-span cable trays are commonly used in:

- Oil and gas facilities
- Mining and pulp/paper industries
- Food and beverage plants
- Commercial infrastructure, including bridges and long straight cable runs

By selecting the appropriate material and span, long-span cable trays provide efficient, durable, and cost-effective solutions for heavy-duty cable management over extended distances.

Article Content

Cable Tray Installation 211215 | PPTX

The document provides information about cable tray systems, including: - The six main types of cable trays: ladder, solid bottom, trough, channel, wire mesh, and single rail. - The materials cable trays

Large Span Cable Trays Lay Heavy Cables in Industries

Different from normal cable trays, Large span cable tray has large supporting span with high loading capacities. Large span cable tray is assembled by pultruded FRP profiles.

GUIDE CABLE TRAYS TECHNICAL

- A maximum longitudinal deflection of 1/100th of the span (example: 20 mm deflection for a distance between supports of 2000 mm)
- A maximum horizontal deflection of 1/20th of the cable tray width

Supporting Heavy Power Cables in Long-Span Installations

What defines a long-span cable tray installation? A long-span installation typically refers to structural supporting systems where the distance between two consecutive support pillars or

Cable Tray Support Span Calculator

Estimate cable tray support spans for projects. Review load, bending stress, and deflection margins. Choose safer support spacing using clear engineering inputs today.

Long-Span Cable Tray | Heavy-Duty Support for Large Industrial Cable

Long-Span Cable Tray | Heavy Load Cable Support for Large Distances Long-span cable trays have a larger support span than ordinary cable trays, with a more sophisticated structural design and greater

Load over Span Considerations

Shorter spans also result in less deflection of the installed product. However, if you require longer spans and less fixing points for your tray or ladder, this can be

Manufacturer of GRP/FRP Pipe & Chemical Equipment by EPP

Water/Wastewater & Marine: Pump stations, treatment facilities and docks (UV- and salt-resistant). Commercial Buildings: Parking garages, stadiums and malls (long spans, lightweight walkways).

Fittings LONG SP

Solid bottom tray shall incorporate two side rails connected by solid steel metal. Ladder shall consist of two side-rails with rungs riveted to the bottom flange of the side-rails. rungs shall be spaced 8" or 12"

The Ultimate Guide to Selecting the Right Cable Tray for Your Project

Span Length: The span length, or the distance between supports of the cable tray, plays a significant role in determining the load capacity. A shorter span can support more weight, whereas

Large Span Cable Trays Lay Heavy Cables in Industries

Large span cable trays can be divided into ladder style, channel style, perforated style with galvanized, powder coated surface to resist corrosion. They are widely used in heavy corrosive environment to

Cable Tray Load and Span: Selecting the Right Tray for Your Cable

Cable tray sizing balances the total cable weight per metre against the tray's safe working load and the support span. Wider support spacing increases deflection, so heavier loads

Cable Tray Manufacturer in India | Industrial Cable Trays

Industrial Cable Trays, Galvanized Perforated & Ladder Type KP Green Engineering is an established supplier and premier cable tray manufacturer in India. KP

Long Span Cable Tray

Long Span Cable Tray The long span cable tray is suitable for long support spans and high cable load capacity, and conforms to the load/span design specified in IEC 61537. The long

Long-Span Channel Cable Tray System

The long-span cable tray adopts the structure of a strengthened side plate, which greatly increases the load capacity of the bridge. The product is suitable for the installation of long-span lines.

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 today with its B-Line series portfolio. With unmatched quality and service, we

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

Cable tray length is selected based on the load to be supported, the distance between the supports (also referred to as the span), and handling and installation constraints.

Fittings LONG SP

The Long Span System is used where long support spans are required. Our h versions show a load rating of 20C according to NEMA. The main application for Long Span Cable Ladders are heavy duty power

TECHNICAL AND SIZING DATA

Conversely if spans are too long, the tray cost is too high. The optimum span, which varies according to the tray type, the type of support method and labour rates (field vs. shop) can be determined by

PRODUCT BROCHURE T& B® Cable Tray Specialty aluminum solutions

40-foot spans reduce support requirements For cable tray applications lacking sufficient space for the number of supports required for standard-length sections, choose T& B Cable Tray long-span AH1-8

Contact Us

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