

Specifications and dimensions of trough-type instrument cable trays



AI Overview

Trough-type instrument cable trays are designed with a partially enclosed bottom, ventilated or solid, providing uniform cable support, protection, and easy access, with standard widths, depths, and lengths tailored for instrumentation and control applications.

General Design Features

- Trough-type cable trays, also known as perforated or V-trough trays, are engineered to support instrumentation, control, and fiber optic cables while minimizing heat buildup and protecting cable integrity. They typically feature:
- Ventilated or solid bottoms to balance cable containment and airflow.
- Rolled top edges for added strength and safety, preventing cable insulation damage.
- High-strength steel construction for durability and compliance with European and OEM standards.
- Tool-less or bolted covers for secure cable protection and easy maintenance.
- Open design for ready access and future cable additions.

Standard Dimensions

Trough-type trays are standardized to ensure compatibility with fittings, covers, and supports. Typical dimensions include:

- Widths:** Commonly range from 50 mm to 300 mm for instrumentation and control applications, with larger widths available for power or fiber bundles.
- Sidewall Heights / Depths:** Usually 50 mm to 150 mm, depending on cable volume and type.
- Lengths:** Standard straight sections are typically 2 m to 3 m, allowing modular installation and minimal on-site fabrication.
- Material Thickness:** Varies by duty class; light-duty trays may use 1.2-1.5 mm steel, while heavy-duty trays can be 2-3 mm.

Ventilation and Cable Fill

Ventilated trays reduce heat accumulation and moisture buildup, important for fiber optic and sensitive instrumentation cables. Usable cable area is slightly less than nominal width due to sidewalls and perforations; fill calculations should follow NEC or NEMA guidelines to avoid overcrowding. Rung spacing for trough trays is typically 150-23...

Article Content

AF_UnifiedCat_Interior_PRINT

V-Trough cable tray keeps cabling cool, protected and easy to manage. Its high-strength steel construction matches many European OEM specifications and is available in smaller sizes for control

Product Catalogue Cable Management Solutions

With over 20 years of experience T& B Cable Tray provides a complete solution in cable management systems including design, manufacturing and technical support by offering a complete solution for

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

Cable tray is considered to be a system. It must provide continuous support for cables, and the electrical continuity of the cable tray system must be maintained.

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

SOLID-BOTTOM CABLE TRAY Providing additional cable protection, solid-bottom cable tray is sometimes preferred to support and protect numerous small instrumentation and control cables.

12-SDMS-06

Trough Type Trough tray shall be prefabricated structure greater than 102 mm in width consisting of a ventilated/perforated bottom within integral or separate longitudinal side rails.

Cable Tray Type Selection

If cable trays are being installed where working space is a problem, hand access through the cable tray bottom may help to facilitate the installation of small diameter cables: control instrumentation, signal,

Instrument Tray Layout

Cable Tray wiring systems are more common than conduit wiring systems because they are safer, more reliable, take up less space, and are cheaper. Instrument Tray Layout is the drawing

Full cable tray systems specification document

A. General: Except as otherwise indicated, provide metal cable trays, of types, classes and sizes indicated; with splice plates, bolts, nuts and washers for connecting units.

Cable Tray Institute

Cable tray, introduced in the mid 1940s, is a safe and economical solution for supporting requirements of electric power, signal, control, instrumentation and communication cables.

SECTION 260536

SECTION 260536 - CABLE TRAYS FOR ELECTRICAL SYSTEMS Latest Update 5-6-2017
See underlined text for Edits. (Engineer shall edit specifications and blue text in header to meet project

Cable Tray Dimensions Guide: Standard Sizes, Tray Types & Sizing

Standard Cable Tray Dimensions Cable tray dimensions are not chosen at random. Across most global markets, they follow well-established dimensional ranges so that trays, fittings,

Steel cable tray

The flexible coupler provides easy installation without measuring and cutting cable tray side rails. Once installed, the coupler allows for electrical continuity, therefore eliminating the requirement for a

B-Line series Cable Tray Design Considerations

A properly designed and installed cable tray system will provide outstanding reliability for a facility's control, communication, data, instrumentation and power systems cabling & wiring. However, if cable

Cable tray

In the electrical wiring of buildings, a cable tray system is used to support insulated electrical cables used for power distribution, control, and communication.

Trough Type Cable Tray Guide: Load, Installation & Benefits

A professional guide to trough type cable trays. Explore load capacity charts, installation guidelines, advantages over ladder type, and key selection criteria for your project.

Cable Tray Dimensions and Specifications as per NEC

Many electrical systems employ cable trays. They route cables safely & efficiently. NEC defines minimum cable tray size & electrical installation specifications. These guidelines protect

Section 26 05 36

B. Ventilated trough type trays shall consist of two longitudinal members (side rails) with a corrugated bottom welded to the side rails. The peaks of the corrugated bottom shall have a minimum flat cable

Perforated Cable Tray Specifications | PDF | Galvanization | Steel

This document describes perforated cable trays in three different styles - light, standard, and heavy duty. It provides details on the tray materials, dimensions, perforation patterns, and available fittings.

Cable tray manual

Ventilated trough cable tray is often used when the specifier does not want to use ladder cable tray to support small diameter multiconductor control and instrumentation cables.

CABLE TRAY SYSTEMS GUIDE

CONCENTRATED STATIC LOADS: Some applications may require the cable tray to support the weight of a single, dead object in addition to the cable loads. Specifications typically require this to be

CableTray Book English

All U12 series (dimensions) ... Technical specifications Load ratings: 1.5 safety factor. All tray sections will support an additional 200 lb concentrated load on any portion of tray above and beyond

GUIDE CABLE TRAYS TECHNICAL

The test consists of applying a load at two points for cable ladders or uniformly distributed for other types of cable tray. A support which is able to accommodate all types of cable tray is therefore tested at

Wireways Selection Guide: Types, Features, Applications | GlobalSpec

The high cost of manufacturing and installing wireways limits their use to small sections of cable management systems, while most systems primarily consist of cable trays, conduit, and other types

Contact Us

For more information, pricing, or custom solutions, please contact us:

Website: <https://www.umele-pestovani.eu>

Email: info@umele-pestovani.eu

Phone: +49 152 287 6349

Address: Neue Mainzer Straße 66-68, 60311 Frankfurt am Main, Germany

This document is for informational purposes only. Specifications subject to change without notice.

