

Installation of Swiss-style cable trays



Overview

The purpose of this article is to define the sequence and methodology for the installation of electrical cable trays, cable trunking, cable raceways and boxes, junction and pull boxes.

Key Takeaways

Proper Swiss cable tray installation ensures safe, organized, and code-compliant routing of electrical cables using structured support, grounding, and precise layout planning.

Planning and Tray Selection

Before installation, plan the cable tray route according to site layout, clearance, and load requirements. Choose the appropriate tray type—ladder, perforated, or solid-bottom trays—based on cable type, airflow needs, and environmental conditions. Ladder trays are ideal for power cables and allow ventilation, while perforated trays support lighter loads and smaller control cables.

Ensure tray sizing matches cable count and spacing to prevent overheating or wasted space.

Support and Mounting

Cable trays must be mechanically supported to maintain structural integrity. Common support methods include trapeze hangers for ceiling suspensions and cantilever wall brackets for vertical runs. Support spacing typically ranges from 1.



5 to 3 meters, depending on tray type and load. Swiss and Swifts systems offer universal brackets and quick-fit fasteners to simplify installation and provide flexibility for on-site adjustments.

Installation Steps

Align and Secure Trays: Use connectors, fittings, and adjustable bends to maintain straight, level runs. For long runs, cable tray rollers help prevent kinks during cable pulling. **Lay Cables Neatly:** Organize cables by voltage and function using cable ties or straps.

Leave slack for expansion or future modifications. **Grounding and Bonding:** Ensure electrical continuity across all metal trays. Use bonding jumpers and follow NEC Article 392 or local Swiss electrical standards for safety.

Labeling and Documentation: Clearly label cables and maintain updated wiring maps for troubleshooting and audits. **Inspection and Maintenance:** Check for loose clamps, misalignment, overfilled sections, or corrosion. Routine maintenance extends tray lifespan and ensures system reliability.

Material Handling and Safety

Store and handle components carefully to prevent damage to coatings or structural integrity. Follow approved drawings and specifications, and ensure all personnel adhere to safety protocols during installation.

Specialized Swiss/

Swifts Features

Swifts cable trays provide slot patterns for flexible positioning of nuts, bolts, and cable ties, along with adjustable bends, risers, and universal brackets for complex layouts. Quick-fit systems reduce installation time while maintaining strength and compliance.

Compliance and Standards

Ensure all trays conform to NEMA VE 1 standards or equivalent Swiss regulations. Avoid overfilling trays to prevent overheating and maintain proper conductor management. Adhering to these standards ensures a safe, reliable, and maintainable cable tray system.

By following these steps, Swiss cable tray installations can achieve efficient cable management, safety, and long-term reliability in commercial, industrial, or data-center environments.

Article Content

Swiss Cable Tray Prices and Installation Methods

The purpose of this article is to define the sequence and methodology for the installation of electrical cable trays, cable trunking, cable raceways and boxes, junction and pull boxes.

Mastering Cable Tray Installation | Step-by-Step Guide for a Seamless ...

The Cable Tray system is installed in electrical rooms, plant rooms, and service corridors. This section will guide you through the necessary steps to

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.

Cable Tray Installation

Whether you're building a commercial setup or upgrading an industrial plant, proper cable tray installation ensures neat wiring, safe access, and easy maintenance. But before you lay the first

5 Steps to Learn How to Install Cable Trays

Here is a step-by-step guide on how to install a standard metal cable tray system (e.g., ladder or perforated type). Before starting, ensure you have the correct personal protective

Cable Tray Installation Procedure Guide

It describes inspecting and storing cable trays upon receipt, installing trays flat or vertically, fixing trays to structures, designing trays to carry loads, providing covers in areas with risk of damage, allowing

Best Practice Guide to Cable Ladder and Cable Tray Systems

This publication is intended as a practical guide for the proper and safe* installation of cable ladder systems, cable tray systems, channel support systems and associated supports.

How to Install Cable Tray: A Comprehensive Guide to Different Cable ...

Welcome to our step-by-step guide on installing cable trays! In this video, we'll explore the different types of cable trays available and provide detailed instructions for their...

SWIFTS CABLE TRAY

With in-depth knowledge and experience, our expert cable management team provides customers with support and advice for any installation... including bespoke solutions (specials) from our in-house

Safely Installing, Maintaining and Inspecting Cable Trays

Cable trays support cables across open spans in the same way that roadway bridges support traffic. Cable trays can provide a safe component of a power, low voltage control, data or

Metal Cable Tray Installation Guidelines | Cable Tray Institute

The Cable Tray Institute is making available the current edition of this practical guide for the proper installation of aluminum or steel cable tray systems. These guidelines will be useful to engineers,

Cable Tray, Three Phase Sockets & SWA Cable Install

Cable Tray, Three Phase Sockets & SWA Cable Install - Part 1 Join me as I install cable tray, three phase and single phase sockets and SWA Cable throughout this brand new industrial unit.

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

A practical guide to product selection and installation This guide for engineers and installers has been developed by ABB as a practical reference regarding cable tray characteristics, installation, and

POWER CABLE INSTALLATION GUIDE

POWER CABLE INSTALLATION GUIDE ... POWER CABLE INSTALLATION GUIDE Cables installed into conduits or trays have installation parameters such as maximum pulling tensions, sidewall

5 Steps to Learn How to Install Cable Trays

Installing a cable tray system requires careful planning to ensure it can support the weight of the cables and adheres to electrical safety codes.

Best practice guide to cable ladder and cable tray systems

Cable ladder and cable tray systems The following recommendations are intended to be a practical guide to ensure the safe and proper installation of cable ladder and cable tray systems

Guide to cable support systems

The mesh cable trays are suitable for the installation of power cables and cables in various areas of application. The grid spacings mean that cables can be inserted and run out in various directions.

Installation of Cable Tray, Trunking And Accessories

2. Purpose This method statement for the Installation of Cable Tray, Trunking, and Accessories shows and explains the procedure must be followed to install the cable tray and

Related Video Reference

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This document is for preliminary research. Verify specifications against current standards, product documentation and project requirements.

