

Cable trays are not required for cables inside electrical wells



Overview

Cable trays are a support system for electrical cables, power, signal, and communication and optical fiber cables. Question 1: Can mechanical utility piping or tubing containing water or compressed air be installed in cable trays with electrical cables?

Answer: No. NEC section 300-8 does not permit. Do we only need to indicate that the cable tray is designed as a support in the drawings, or should there be physical signage upon installation as well?

As far as cable tray loads go, I do not yet have all my cables designed (still lacking load information), but will calculate all the cable weights. Cable trays can be used as a support system for various wiring methods, including service conductors, feeders, branch circuits, communications circuits, control circuits, and signaling circuits (392). Cable tray is the preferred wiring method for industrial facilities, data centers, and large commercial buildings where routing dozens or. The primary rulebook of cable tray systems is called NEC Article 392. It instructs us on how to construct them, where to locate them, and how to stuff them with wires without using too much. They are typically installed as an industrial-type wiring method but not limited to industrial uses.

Article Content

Sep 25, 2025

Cable Tray Fill Rules (NEC 392)

This guide covers the cable tray types and their appropriate applications, the fill rules for each configuration, ampacity derating requirements, separation of power and signal cables, and the ...

Jun 02, 2026

Cable Tray Installations Can Be Tricky: Definitions make the difference

Each cable tray system must be complete before cables are installed and must be exposed and accessible, except where extended transversely through partitions and walls, or ...

Jun 24, 2026

NEC Article 392: Cable Tray Systems | PDF | Electrical Wiring

It defines cable trays and their components. It provides rules for acceptable wiring methods that can be installed in cable trays, including conditions for use. It addresses uses permitted and not permitted ...

Jul 29, 2025

29 CFR 1910.305 -

(xi) Cable assemblies and flexible cords and cables shall be supported in place at intervals that ensure that they will be protected from physical damage. Support shall be in the form of staples, cables ties, ...

Nov 15, 2025

Stumped by the Code? Requirements for Underground ...

Cables and insulated conductors installed in underground enclosures or raceways must comply with Sec. 310.10 (C) requirements for the insulation of ...

Jul 21, 2025

Explaining NEC Article 392 on Cable Trays

Cable trays are permitted for use in any type of building or structure, provided they comply with the relevant installation and support requirements outlined in NEC Article 392.

Oct 13, 2025

NEC Article 392 Guide: Ensuring Compliance for Cable Tray Systems

To ensure that a cable tray is safe, all the bolts should be tight, and all the connections should also be clean. Without a properly bonded tray, the tray will not insulate the building in case of ...

Nov 30, 2025

NEC 300.11(C): Cable tray used as a means of support

NEC explicitly says that cable trays are support structures and are not raceways. Not sure why I categorized them as raceways in my head, but it's good to revisit the basics periodically.

May 24, 2026

Cable Tray Questions | Cable Tray Institute

Question 1: Can mechanical utility piping or tubing containing water or compressed air be installed in cable trays with electrical cables? Answer: No. Cable trays are a support system for electrical cables, ...

Aug 03, 2025

Stumped by the Code? NEC Rule Regarding Cable Tray Systems

A. Cable trays must be installed as a complete system, except mechanically discontinuous segments between cable tray runs, or between cable tray runs and equipment as ...

Oct 25, 2025

Understanding NEC Article 392

Once the physical tray is built, there are specific rules for how the cables are actually laid inside. Cables must be installed in a neat, workmanlike manner, often requiring physical separation ...

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