

Seismic Supports for Conduit Cable Trays



Overview

Seismic restraints are designed to resist the horizontal seismic force in two primary directions: Transverse (perpendicular) and Longitudinal (parallel) to the run. The braces are attached to the building with a structure attachment (for concrete, steel, wood, etc.) of various. Requests for copies of this report should be directed to the EPRI Distribution Center, 207 Coggins Drive, P. Box 23205, Pleasant Hill, CA 94523, (510) 934-4212. For over 60 years, the mechanical, electrical, and fire protection trades have relied on TOLCO seismic bracing solutions. Our strong legacy includes OSHPD OPA and OPM approvals, Structural Engineer approvals, and compliance with International Building. Earthquakes and seismic events can cause severe damage to electrical infrastructure, including cable trays, leading to outages and even safety hazards. In regions prone to seismic activity, ensuring that your cable tray system is capable of withstanding such events is vital. On some occasions the conduit hanger rods 12 in or less in length be restrained.



Article Content

Jan 21, 2026

UNISTRUT Seismic Bracing Solutions

Requirement: Each straight run requires a minimum of (2) transverse braces and (1) longitudinal brace.

Sep 18, 2025

Seismic Bracing Installation Best Practices: Cable

Seismic Bracing Installation Best Practices: Cable Bracing for Trapeze Applications No matter where in the world, building owners should consider the

Jun 21, 2026

Seismic Bracing Cables & Hangers | Gripple

We offer a pre-engineered, time-saving solution which braces and secures non-structural equipment within a building to minimize damage from earthquakes or

Oct 31, 2025

Cable Tray and Conduit System Seismic Evaluation Guidelines

The checks of the analytical review guidelines are formulated to ensure that cable tray and conduit supports are seismically rugged, consistent with the above observations from the seismic experience

Feb 05, 2026

Performance-based optimum seismic design of cable tray system

The seismic performance levels of cable tray systems are presented according to current seismic design codes. A performance-based optimum seismic design procedure for cable tray

Feb 09, 2026

Evaluation of cable tray and conduit systems using the seismic ...

Cable tray and conduit systems have an excellent earthquake performance record. This has been evidenced at over 70 power and industrial facilities in 14 past major earthquakes, and is

Sep 28, 2025

Test-based approach to cable tray support system analysis and

Nuclear power plant safety-related cable tray support systems subjected to seismic loadings were originally understood and designed to behave as linear elastic systems. This

Aug 06, 2025

Seismic analysis and design of electrical cable trays and support ...

Most cable trays in nuclear power plants are classified as seismic category I components. Current safety requirements dictate that all such components be adequately designed in order to

Dec 21, 2025

Seismic Supports

Seismic Supports Cable trays are systems used for the safe transportation and protection of electrical cables, designed to fit the pathways within buildings and

Nov 02, 2025

Evaluation of cable tray and conduit systems using the seismic ...

In previous evaluation, the inherent carrying capacity was used to assess the seismic performance of the cable tray system [21,22]. After damage observations of the cable tray system

Oct 12, 2025

KINETICS™ Pipe & Duct Seismic Application Manu

Strap cables, either individually or in bundles, to the cable tray at a spacing equal to one half the support spacing to spread the seismic loads evenly to all restraint points.

Feb 08, 2026

Multi-Directional Bracing ForElectrical Conduit, Cable Tray And ...

Multi-Directional Bracing ForElectrical Conduit, Cable Tray And Mechanical Piping Systems INTRODUCTION What is Seismic Bracing? Seismic forces are exerted on a building and its contents

Aug 04, 2025

EARTHQUAKE PROTECTION

Pipe, Cable Trays, Bus Ducts & Conduit Bracing Details Cable Bracing SWIVEL FASTENER (TYP.) SEISMIC TENSION LOAD (REACTION) STIFFENER CLAMP STIFFENER CLAMP

Jun 26, 2025

Seismic and cable tray solution flyer

Eaton's B-Line series cable tray with TOLCO seismic bracing is the recommended total solution for your project. Our cable tray, bolted framing, and seismic bracing are approved as one system through

Nov 23, 2025

Cable and Conduit Raceway Review

Seismic Review Guidelines The seismic review guidelines contained in this section are applicable to steel and aluminum cable tray and conduit support systems at any elevation in a nuclear power

Feb 21, 2026

Installing Seismic Restraints for Electrical Equipment

Raceways/Conduits/Cable Trays: Covers the different ways to install raceways, conduits, and cable trays. Attachment Types: Gives instructions on installing equipment in different arrangements known

Apr 16, 2026

Cable Tray and Conduit System Seismic Evaluation Guidelines

Guidelines are presented here for conducting in-plant seismic ruggedness review of conduit, cable trays, and their support systems. The in-plant review has two purposes.

Jan 15, 2026

Multi-Directional Bracing For Electrical Conduit, Cable Tray And ...

Typical supports for piping, trays, and other equipment are designed for the gravity, or vertical, loads but do not take into account the horizontal loading caused by earthquakes. Seismic restraints (i.e.

Nov 29, 2025

Seismic Bracing Kit | Seismic Bracing | Wire and Cable Hangers | Wire ...

Kit contains items needed for seismic bracing long cable tray runs. Each kit contains: (4) 11" cables with mounting eyelets (2) Metal brackets for attachment to support members (4) Cable clamp collars (4)

Jun 25, 2026

Seismic Supports for Electrical Cable Systems | Journal of the Power ...

Seismic Category I supports for electrical conduit and cable tray systems are described. Types of supports and their analysis, design, and installation are also presented. Approximate formulas for

Sep 06, 2025

Cable & Pipe Supports

In Australia, seismic compliance is mandated by Section 8 of AS1170.4 (2007). EzyStrut offers a range of seismic solutions that comply with AS1170, and our one-stop range of seismic bracing, cable tray

Aug 27, 2025

KINETICS™ Seismic & Wind Design Manual Section

As with cable restraints, floor- or roof-mounted electrical distribution support systems will normally involve a box frame that supports the system (single or multiple runs) with some kind of a trapeze bar.

Mar 31, 2026

Evaluation of cable tray and conduit systems using the

Cable tray and conduit systems exhibit strong seismic performance, evidenced by data from 70 facilities across 14 earthquakes. Developed method provides

May 20, 2026

Seismic MEP Solutions | Eaton

Eaton's TOLCO seismic bracing solutions help protect people and non-structural components during an earthquake. For over 60 years, the mechanical, electrical, and fire protection trades have relied on

Sep 23, 2025

Seismic Cable Restraint Kits

Overview The Easy ex EF5CK Series Seismic Cable Restraint Kits are engineered to secure suspended non-structural components—such as ductwork, piping, conduit, cable trays, and HVAC

Aug 21, 2025

Understanding the Seismic Resistance of Cable Trays

This article discusses the importance of seismic resistance for cable trays, detailing when seismic braces are necessary, the factors that affect seismic

Jan 04, 2026

E-Line Seismic

Seismic support is designed to protect pipes, ducts, and other suspended systems from lateral movement during seismic events. Its main goal is to mitigate the

Contact Us

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