



**Adam Tas Corridor Energy**

# **Standards for Setting Up Seismic Bracing for Cable Trays**





## Overview

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This manual has been developed under the requirements of the 2001 California Building Code, and contains seismic bracing details that can be used for seismic bracing projects up to 1. This appendix provides the design criteria for seismic Category I cable trays and their supports. A series of cable trays in multiple layers were installed above the equipment rack to provide cabling for the equipment. Eaton's TOLCO seismic bracing solutions help protect people and non-structural components during an earthquake. Supports for these systems are typically sized to carry approximately a 10 ft length of conduit or duct (in the case of trapezes, multiple pieces of conduit each approx 10 ft long).



## Standards for Setting Up Seismic Bracing for Cable Trays

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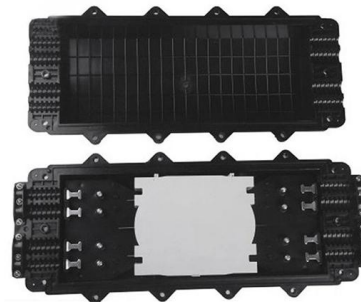
### Multi-Directional Bracing For Electrical Conduit, Cable Tray And



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### SEISMIC BRACING OF A DISTRIBUTED CABLE TRAY SYSTEM

Traditional system for bracing cable trays using diagonal bracing extending up to the roof would have been impractical due to the extensive amount of cable trays, the lightweight framing of the roof, and



### Performance-based optimum seismic design of cable tray system

A performance-based optimum seismic design procedure for cable tray systems is given and verified by three studied cases.

### 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



### Westinghouse AP1000 Design Control Document Rev. 19

The AP1000 cable tray system design requires no sprayed-on material for fire protection. Cable ties are provided at spacing greater than 4 feet, thereby permitting cable movement within the trays. The

### Rev 7 to Procedure SAG.CP3, "Seismic Design Criteria for Cable Tray

Determine the required seismic design "g" values-for the cable tray hanger by multiplying 1.25 to the above "g" value (obtained in Step iv) to account for multimode response except as noted in-

02

High Quality Material



High hardness to resist external impact, Good Shaping Performance, Good Look and Anti-rust



### Cable Tray and Conduit System Seismic Evaluation Guidelines

Rigid-mounted conduit and cable trays are inherently very stable and subject to minimal seismic amplification. A detailed dead load design review of these systems provides ample margin for



## 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

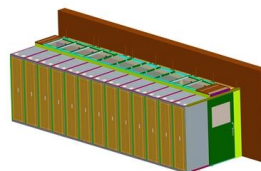


## Cable & Pipe Supports

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

## SOLUTIONS

Engineer certified designs and site inspections  
Ezystrut offers a range of seismic solutions that comply with Australian Standard AS1170.4. Our one-stop solution for seismic bracing, cable tray, pipe



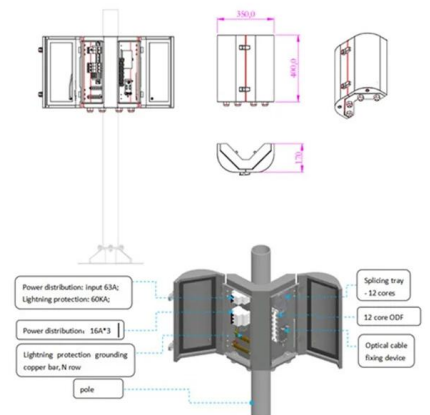
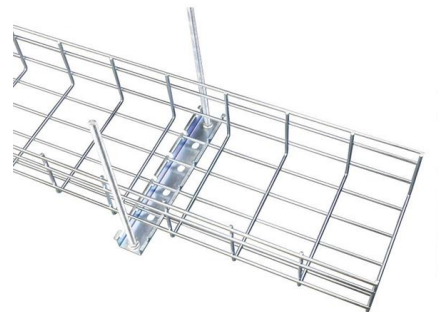
## Seismic analysis and design of electrical cable trays and support

The design aspects of electrical cable trays and support systems are discussed from the seismic and structural standpoint. The effects of the inherent flexibility of commonly used cable trays



## Seismic fragility analysis of suspended cable trays in civil buildings

This study aims to understand the seismic fragility of typical suspended cable trays in civil buildings through full-scale shaking table tests and numerical simulation. Based on the shaking table



## Appendix 3F Cable Trays and Cable Tray Supports

This appendix provides the design criteria for seismic Category I cable trays and their supports. Seismic Category II cable trays and their supports are also designed utilizing the design criteria of this appendix.

## KINETICS(TM) Seismic & Wind Design Manual Section

SEISMIC FORCES ACTING ON ELECTRICAL DISTRIBUTION SYSTEMS When subjected to an earthquake, electrical distribution systems must resist lateral and axial buckling forces, and the





## 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

## Seismic Bracing Ensures Stability and Safety of Cable

Seismic Bracing - Enhancing System Stability and Seismic Resistance Seismic bracing, typically made of high-strength metal, is key component specifically

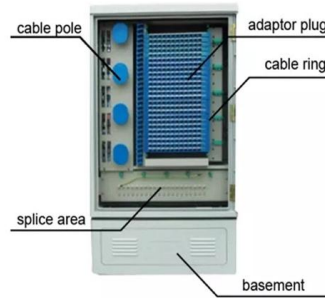


## Seismic MEP Solutions , Eaton

Cable bracing works in tension, so it requires two opposing brace assemblies at each brace location. Rigid bracing works in both tension and compression, so one brace assembly per brace location is

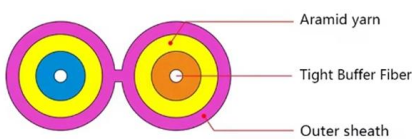
## Understanding the Seismic Resistance of Cable Trays

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



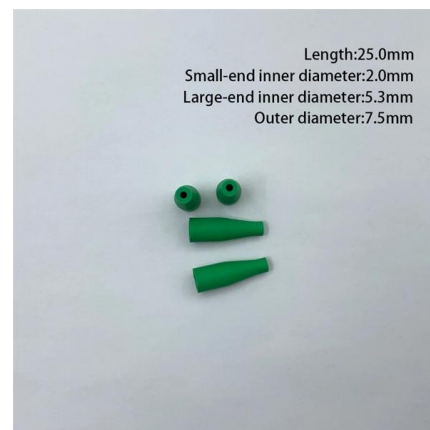
### Cable Tray Checklist for High-Seismicity Projects

The right tray type should be selected based on the expected cable load, support spacing, bracing method, and required retention performance--not on ordinary installation habit alone.



### Seismic Cable Restraint Kits

Designed in compliance with ASCE 7 and the International Building Code (IBC), these kits offer multidirectional restraint and meet stringent requirements for life safety and equipment survivability



### Vogle Electric Generating Plant (VEGP) Units 3 and 4 Updated

Cable Trays and Cable Tray Supports This appendix provides the design criteria for seismic Category I cable trays and their supports. Seismic Category II cable trays and their supports are also designed



## **UNISTRUT Seismic Bracing Solutions**

UNISTRUT Seismic Bracing Solutions Unistrut is a global leader in seismic bracing solutions and is a go-to resource for Engineers, Contractors, Specifiers, and others. We have decades of experience



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