

Earthquake-resistant cable trays in Australia



Overview

Cable & Pipe Supports It's a sure sign your cable management solution is designed in Australia, rigorously and independently tested to meet Australian stan.

Key Takeaways

Seismic cable trays in Australia are designed with specialized bracing and supports to comply with AS 1170. 4, ensuring safety and operational continuity during earthquakes.

Importance of Seismic Cable Trays

Earthquakes can exert significant horizontal and vertical forces on cable trays, potentially causing collapse, electrical outages, or safety hazards. In Australia, where seismic activity is less frequent but still possible, ensuring cable tray systems are earthquake-resistant is critical for hospitals, data centers, high-rises, and industrial facilities to maintain operational integrity and protect personnel and equipment.

Standards and Compliance

Australian seismic design requirements for non-structural components, including cable trays, are governed by AS/NZS 1170. 4. This standard specifies the design loads, bracing requirements, and installation practices to resist seismic forces.

Compliance ensures that cable trays remain secure during seismic events and reduces the risk of damage to adjacent systems.



Seismic Bracing Solutions

Seismic cable tray systems typically include: Horizontal and vertical braces to resist lateral earthquake forces. Threaded rod stiffening to prevent buckling under compression or uplift forces. Wire or solid braces for flexibility in tight or unconventional spaces.

Suspension systems for non-structural components like HVAC, piping, and cable trays. These solutions are engineered to maintain the integrity of electrical infrastructure and minimize downtime during and after seismic events.

Suppliers and Solutions in Australia

Several Australian companies provide seismic-compliant cable tray systems: EzyStrut: Offers a full range of seismic bracing, cable trays, and strut systems, with engineer-certified designs and extensive project experience across Australia.

Burndy CS

S: Provides wire and solid brace solutions, including rod stiffening for compression resistance, tailored for complex installations. Gripple Australia: Specializes in bracing suspended non-structural equipment, including cable trays, ensuring compliance with seismic design standards. Blitz Systems: Offers pre-engineered, seismic-rated cable tray supports that are independently certified to ANSI/ASHRAE 171-2017 and AS 1170.

4, streamlining installation and compliance.

Practical Considerations

When selecting or installing earthquake-resistant cable trays: Evaluate building type and occupancy, as critical facilities require higher safety margins. Consider retrofit vs. new installation, as retrofitting may require additional bracing or structural modifications. Ensure engineer-certified designs and adherence to AS 1170.

4 to avoid legal, insurance, or safety issues. Factor in space constraints, as seismic braces may require additional clearance or flexible configurations. Investing in seismic-compliant cable trays reduces the risk of system failure, protects lives, and ensures continuity of essential services during seismic events.

Article Content

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It's a sure sign your cable management solution is designed in Australia, rigorously and independently tested to meet Australian standards, and selected from Australia's fastest growing range of seismic

SOLUTIONS

specifications Ezystrut offers a range of seismic solutions that comply with Australian Standard. 1170.4. Our one-stop solution for seismic bracing, cable tray, pipe hangers, strut systems and fasteners takes the

Cable Tray for Electrical Installations | Ozstrut

Contractors use cable trays to route and protect cables, keeping systems organised and compliant with Australian Standards. Cable trays are able to hold heavy loads and also make installation much

Reliable Cable Tray Seismic Bracing | Control Quake

Maximize system safety during quakes with our durable cable tray seismic bracing, ensuring cables and pipes stay secure and vibration-free.

We make the complex simple!

Typical supports for cable 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.

Seismic Bracing

PE stamped layout drawings for each service noting the proper location of Gripple Seismic Cable Bracing and/or Vibration Management

Seismic Bracing Suspension

Seismic bracing suspension designed to protect non-structural components, and under the broader category of non-structural seismic bracing.

The Blitz Approach to Seismic Compliance: Faster,

Building seismic-compliant Cable Tray Systems doesn't have to mean complexity. Blitz provides a complete solution with modular supports and

Blitz Systems | Cable Tray Installation Made Easy

Welcome to Blitz Systems, your trusted partner in delivering high-quality, efficient, and cost-effective cable tray solutions across Australia. Whether managing

CABLE MANAGEMENT SYSTEMS

We offer a range of FRP or GRP Cable Management Systems including trays, ground ducts, ladders, accessories, supports, fittings, and fixings. These systems provide a safe transport of any wires or

Cable Tray Seismic Performance Testing: What You

Learn why Cable Tray Seismic Performance Testing is essential for infrastructure safety, and what standards ensure your trays can withstand

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

Cable Tray Sizes & Compliance: Meeting Australian Electrical Standards

Learn how to choose the right cable tray size. Meet Australian standards with Solar Rains" cable trays for safe & efficient solar.

What are the seismic design considerations for cable trays?

Seismic events can pose significant threats to various infrastructure systems, including cable trays. As a cable tray supplier, understanding the seismic design considerations is crucial to ensure the safety

Cable Trays Seismic Design: Protecting Power in

Learn how I approach Cable Trays Seismic Design to protect power and data in earthquake-prone areas. Understand key principles, methods, and

Understanding Seismic Support for Electrical Installations

Explore the essential guidelines for seismic support in electrical installations, focusing on cable trays and their critical role in ensuring system safety during earthquakes. Learn about key spaci...

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

Cable Support Systems

EzyStrut is Australia's market leading supplier for cable support systems, offering cable ladder, tray, mesh and duct solutions.

Contact Us

Continue your research online:

Website: <https://cgweb.co.za>

Technical inquiry: <https://cgweb.co.za/project-enquiry.html>

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

