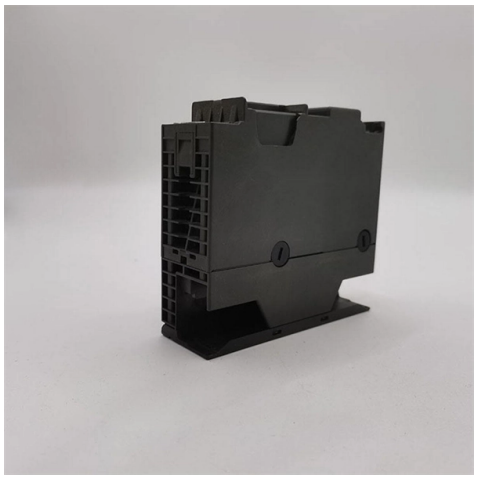
Seismic Bracing for Two-Way Cable Trays in Australia



Overview

Cable & Pipe Supports EzyStrut offers a range of seismic solutions that comply with AS1170, and our one-stop range of seismic bracing, cable tray and ladde.

Key Takeaways

Seismic bracing for cable trays in Australia ensures non-structural systems remain secure during earthquakes, following AS1170. 4 standards and requiring engineered design and certified installation.

Overview

Seismic bracing is essential for cable trays, ductwork, piping, and other non-structural building services to prevent collapse or damage during seismic events. Standard cable tray supports are typically designed for vertical loads only, so horizontal seismic forces must be addressed with additional bracing to maintain safety and operational continuity of critical services. Australian Standards and ComplianceAS/NZS 1170.

4: Governs the design of structures and non-structural components to resist seismic forces. Certification: In Queensland and other regions, compliance often requires Form 15 design certificates and Form 16 installation certificates, completed by qualified engineers and installers. National Construction Code (NCC): Seismic bracing must align with NCC requirements for building safety and service continuity.

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Bracing Types and Design Considerations

Rigid Bracing: Uses solid or wire braces to resist horizontal movement and prevent buckling of vertical rods. Flexible Bracing: Allows controlled movement while limiting sway, suitable for certain MEP systems like HVAC or cable trays. Rod Stiffening: Vertical threaded rods supporting seismic braces may require stiffeners to prevent buckling under compressive forces.

Load Calculations: Bracing must account for gravity, horizontal seismic loads, and uplift forces, ensuring the design load does not exceed allowable connection limits.

Installation Guidelines

Braces should be positioned at trapeze supports or anchor points with minimum clearances (e.g., 150 mm between anchors) to allow proper cable tray movement and access. Installation must follow engineered drawings and consider the type of cable tray, material (galvanized steel, aluminum, stainless steel), and environmental conditions. On-site verification ensures that hanging rods, braces, and anchors are correctly installed to prevent failure during seismic events.

Available Solutions in AustraliaEzyStrut: Offers a full range of seismic bracing products, including cable tray supports, strut systems, and fasteners, with engineer-certified designs. Gripple Australia: Provides seismic bracing systems for cable trays, HVAC, and piping, with design support and on-site training.

Burndy CS

S: Supplies rigid and flexible bracing solutions, including wire and solid braces, with Australian-made products compliant with AS/NZS 1170. 4.

PP

I Industries: Delivers turnkey seismic solutions, including design, supply, and certification, with support for BIM/CAD layouts and project management.

Key Takeaways

Seismic bracing is mandatory for cable trays in seismic-prone areas to protect life and maintain service continuity. Compliance with AS1170. 4 and NCC is essential, with certified design and installation documentation.

Engineered solutions from Australian suppliers like EzyStrut, Gripple, Burndy, and PPI ensure proper bracing, material selection, and installation practices. Rod stiffening, brace placement, and load calculations are critical to prevent buckling and failure during seismic events. By following these guidelines and using certified products, cable tray systems in Australia can be effectively protected against seismic forces, ensuring both safety and operational reliability.

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Article Content

Cable & Pipe Supports

EzyStrut offers a range of seismic solutions that comply with AS1170, and our one-stop range of seismic bracing, cable tray and ladder, pipe hangers, channel and quality fasteners takes the guesswork out

SOLUTIONS

spections 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

Seismic Brace Installation Details

Seismic Design tually work when you''re on site. Every solution is designed for compliance with AS1170.4 and AS5216, whil reducing construction complexity. We support your team from concept to

Seismic Bracing

We work with our clients to design and suspended non-structural building components are critical for the proper functioning of a

Seismic Cable Bracing Solutions Guide

Ezystrut offers seismic bracing solutions for cable trays and pipes that comply with Australian standards. They provide two main types of seismic bracing: cable bracing using steel cables at angles, and rigid

We make the complex simple!

Our team can assist you with Seismic Bracing for Cable Support Systems. We offer both rigid and flexible bracing options. We can also assist you with: Burndy is an Australian owned and operated

Seismic Bracing

Seismic bracing systems for Australian construction conditions. Reliable seismic restraints, channel systems and support solutions available from OzStrut.

GS25 Seismic Bracing Kit

The Gripple® GS25 Seismic Bracing Systems are specifically designed and engineered to brace and secure suspended nonstructural equipment (VAV

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NOTE: THE CAPACITY OF THIS BRACE IS A FACTOR OF SERVICE WEIGHT AND WIDTH - PLEASE CONSULT YOUR KUSCH ENGINEER FOR ADVICE ON APPLYING THIS DESIGN TO

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.

Seismic Solutions

Seismic Solutions Flexible Bracing Accessories Rigid Bracing Accessories Seismic Catalogue Download

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 Design & Installation Guide

Seismic Design coordination of mechanical services and other plenum located elements, including lights, air conditioning, cable trays, fire suppression systems etc, with the suspended ceiling is

SEISMIC BRACING OF A DISTRIBUTED CABLE TRAY SYSTEM

Above these cabinets, are cable trays that provide power and communications cabling to the cabinets. Since the facilities were located in a area of high seismicity, the cable tray system was required to be

Seismic Brace Installation Details

BRACING OF SERVICES SYMBOL DENOTES CABLE SPECIFIED TO PROJECT-SPECIFIC SEISMIC GREATER INSTALLATION HORIZONTAL -WAY or 4-WAY CABLE FRONT ELEVATION

EARTHQUAKE PROTECTION

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

Services

This includes bracings for HVAC, cable tray, ductwork pipework and associated equipment and plant. As well as the industry leading product range, Polyplas International is also able to supply a

Seismic Bracing Suspension

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

Related Video Reference

This video was associated with the source search result. Verify technical details against current product documentation and project requirements.

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Website: https://explosivefunctions.co.za
Technical inquiry: https://explosivefunctions.co.za/contact.html
EU project coordination: Parque das Nações, Lisbon, Portugal

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

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