

Seismic bracing

B-LINE  
SERIES



# TOLCO seismic bracing

UL listed and FM approved for fire sprinkler systems

**EATON**

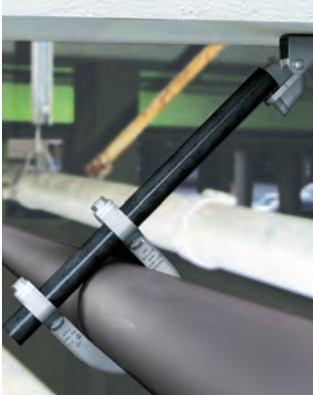
*Powering Business Worldwide*

# TOLCO™ seismic bracing assemblies meet NFPA guidelines

## Lateral seismic brace assemblies

### NFPA 13 (2013) Sec. 9.3.5.5

“Lateral sway bracing shall be provided on all feed and cross mains regardless of size and all branch lines and other piping with a diameter of 2½ inches (65mm) or larger.” \*



- Fig. 1001 sway brace attachment
- Fig. 980 universal swivel sway brace attachment
- 1" (or up to 2") schedule 40 brace pipe
- Shown in image on the right attached to Fig. 828 universal seismic sway brace structural attachment

## Longitudinal seismic brace assemblies

### NFPA 13 (2013) Sec. 9.3.5.6

“Longitudinal sway bracing spaced at a maximum of 80 feet (24.4m) on center shall be provided for feed and cross mains.” \*



- Fig. 4LA (left) or Fig. 4L (right) in-line longitudinal sway brace attachment
- Fig. 980 universal swivel sway brace attachment
- 1" (or up to 2") schedule 40 brace pipe
- Can be attached to other TOLCO seismic structural attachments, such as the Fig. 800, Fig. 825, or Fig. 828

## Four way “top of riser” seismic brace assembly

### NFPA 13 (2013) Sec. 9.3.5.8.1

“Tops of risers exceeding 3 feet (1m) in length shall be provided with a four way brace.” \*



- Shown with two Fig. 1001 Fast Clamp™ sway brace attachments
- Secured to wall using two Fig. 980 universal swivel sway brace attachments
- 1" (or up to 2") schedule 40 brace pipe

## Branch line restraints

### NFPA 13 (2013) Sec. 9.3.6.1

“Restraint is considered a lesser degree of resisting loads than bracing and shall be provided...”\*



- Fig. -Fig. 76 structural attachment
- Fig. 77 system piping attachment
- Fig. 100 all thread rod

\*For the most up-to-date and full details on the NFPA guidelines, please refer to the NFPA website: [www.nfpa.org](http://www.nfpa.org)

## Create a complete submittal package with TOLBrace software

Designed for ease of use, the B-Line series TOLBrace™ software steps the user through a series of questions to determine the scope of the project. It helps the user create detailed reports of the appropriate seismic bracing components and TIFF files for CAD use. It calculates the correct bracing loads per NFPA 13 guidelines, Uniform Building Code (UBC) and International Building Code (IBC). Also, to help ensure users are following the latest codes, standards, and product requirements, TOLBrace software also includes an automatic update feature.

### TOLBrace software assists fire sprinkler system designers in:

- Seismic force factor calculations (Fp)
- Zone of influence calculations
- Sway brace orientation and angle selection
- Structural attachment of sway braces
- Brace material selection
- Appropriate selection of UL listed and FM approved sway brace components
- Creating a submittal sheet with all relevant information with the click of a mouse
- Available in English, Spanish, and Korean

### TOLBrace follows the requirements of:

- NFPA 13, 1999, 2002, 2007, 2010 & 2013
- Factory Mutual
- Uniform Building Code
- International Building Code
- National Building Code of Canada
- California Office of Statewide Health Planning & Development (OSHPD)

For additional support, contact your TOLCO seismic bracing specialist at:

Phone: 800-786-5266

Email: [SeismicQuotes@Eaton.com](mailto:SeismicQuotes@Eaton.com)

Email: [TolcoSupport@Eaton.com](mailto:TolcoSupport@Eaton.com)

To learn more, visit

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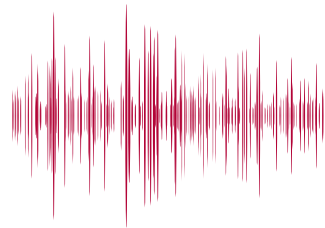
# The TOLCO advantage

## Disadvantages of traditional seismic bracing

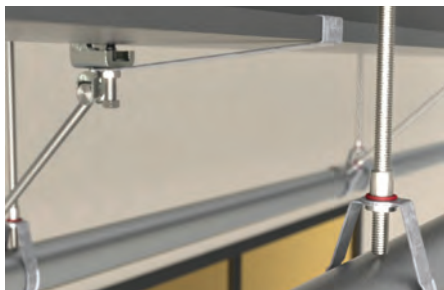
- ✗ Commodity materials
- ✗ High cost in field labor, cutting, welding, and fastening
- ✗ No pre-approvals or listings (UL, FM)
- ✗ Higher engineering cost
- ✗ No visual verification options can make inspection of proper installation more difficult
- ✗ No standard work – every system requires a specialized installation

## Advantages of TOLCO seismic bracing

- ✓ Specialized seismic components, braces, and restraints
- ✓ Designed for easy, fast installation
- ✓ UL listed and FM approved
- ✓ OSHPD Preapproval for California Building Code (CBC) 2013 and CBC 2016
- ✓ Visual verification of proper installation
- ✓ Standardized installation practice
- ✓ Backed by TOLBrace™ Seismic zone of influence calculation software, for installation per NFPA 13



## TOLCO – seismic bracing solutions



Beam clamp with retaining strap



Longitudinal brace



Lateral brace



Branch line restraint



Universal structural attachment



Riser brace



# TOLCO seismic bracing specified worldwide

TOLCO™ seismic bracing products are specified worldwide for bracing fire sprinkler systems to help against damage from earthquakes. Installing our UL listed and FM approved bracing products help to ensure compliance with the National Fire Protection Association Standard for the Installation of Fire Sprinkler systems (NFPA 13).



## Why TOLCO seismic bracing?

TOLCO seismic bracing products are manufactured in Reno, Nevada and the TOLCO seismic engineering team is located on the “Ring of Fire” in Fontana, California.

Being located in a virtual “living laboratory of seismic activity” has driven our team of engineers to develop some of the best seismic bracing product designs in the industry. Our products are known and respected by installers, designers and fire protection authorities worldwide.

For over 45 years, TOLCO seismic bracing products have been installed around the world where earthquakes are prevalent. Our UL listed and FM approved quality seismic bracing products are confidently relied upon.

## TOLCO seismic bracing key features help drive results



### Visual verification

As shown above with TOLCO Fig. 980, break-off bolts help verify proper installation torque.



### Labor savings

As shown above using TOLCO Fig. 4L, seismic attachments install with a minimum of fasteners, require no threading or welding, and can be adjusted in the field to fit the application.



### Universal features

As shown above using TOLCO Fig. 828, the Universal Seismic Structural Attachment can be used on various types of steel structures to attach seismic bracing assemblies.

For more information, visit  
[Eaton.com/fps](http://Eaton.com/fps)

**U.S. Customer Service Center is staffed Monday through Friday from 7 a.m. to 5 p.m. Central Standard Time.**

**Eaton - United States - Main office**  
509 West Monroe Street  
Highland, IL 62249  
United States  
800-851-7415

**Eaton - United States**  
13201 Dahlia Street, Suite 200  
Fontana, CA 92337  
United States  
909-427-9756

**Eaton - Canada**  
5925 McLaughlin Road  
Mississauga, ON L5R 1B8  
Canada  
800-569-3660

**Eaton - Europe**  
Building 2, Argosy Court,  
Whitley Business Park, Scimitar Way  
Coventry, CV3 4GA  
United Kingdom  
+44 (0) 1278 783371

**Eaton - Saudi Arabia**  
PO Box 70160 - Al Khobar - 31952  
Kingdom of Saudi Arabia  
+966 506 395 973

**Eaton**  
1000 Eaton Boulevard  
Cleveland, OH 44122  
United States  
[Eaton.com](http://Eaton.com)

B-Line Division  
509 West Monroe Street  
Highland, IL 62249  
[Eaton.com](http://Eaton.com)

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