

# Wabo® BusTuff Heavy Duty Expansion Joint System

Engineered to be rugged and reliable.  
Designed to eliminate cover plate noise.  
Simple installation.



## Features and Benefits

Not your average plate joint system

FEATURES	BENEFITS
Design Longevity	Structural elements designed for infinite fatigue life. Maintenance free, structural steel components
Unique Anchorage System	Fastening system engineered to secure cover plate under any conditions, displacements and rotations
Sound Attenuation	Engineered to completely eliminate cover plate slapping and bouncing by using our QuietRide™ technology
Easy Install	Lane-by-lane installation of plates promotes simple process

## Specify

### Serious loading capabilities

The Wabo®BusTuff system absorbs impact and carry axle loads up to and including 40,000 pounds

- Handles 30% horizontal impact forces created by large vehicles traveling at high speeds across the system
- Accommodates slab movements in all directions while eliminating failure modes most often associated with plate-type systems

## Wabo®BusTuff

### Recommended applications.

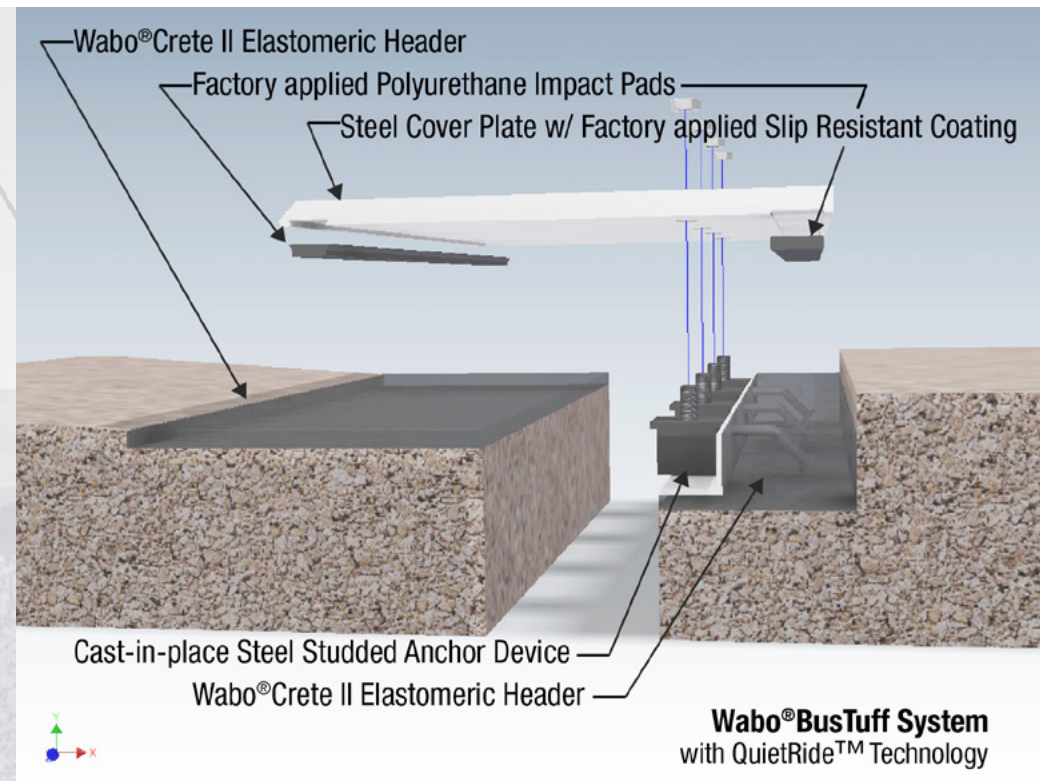
- Fly-in/elevated bridge structures at Public Transportation facilities
- Airport Terminal Pickup Locations in proximity to buses
- New construction and staged construction rehabilitation projects
- Horizontal use, high speed, high vehicle weight, and high daily traffic count applications

# Wabo®BusTuff (BTS)

Heavy duty expansion joint system

**Designed and proven to accommodate high load, high speed, high daily traffic count parking deck challenges**

This system has also been designed and tested to withstand the most demanding seismic events, resulting in the most fully functional expansion joint system in the marketplace. Successful seismic testing of the BusTuff system was conducted in 2012 at the Pacific Earthquake Engineering Research (PEER) Center, University of California, Berkeley. This system will effectively handle up to a Magnitude 8 seismic event, allowing for continuous use even during significant seismic activity.



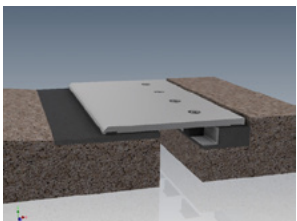
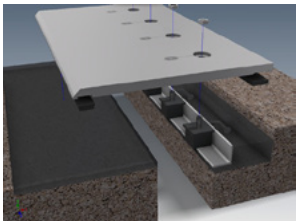
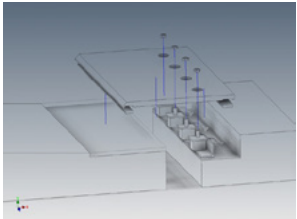


# Technical System Data

Each Wabo®BusTuff expansion control system is specifically designed to suit individual project conditions.

Considerations for use are high loads (vehicles higher in weight than passenger vehicles and pickup trucks i.e. oscillating buses), vehicles traveling at speeds in excess of 15 miles per hour, transitions in elevation across opposing decks, and locations where large vehicle count-per-day exists.

Our technical staff can provide the highly skilled engineering services required to transform design considerations, joint opening(s), and thermal and/or seismic movements into a maintenance-free system built to last. Preassembly and shorter sized panels allow for quick lane-by-lane installation on retrofit applications.



# Physical System Properties

**Steel Edge Members** – all steel members and cover plates are manufactured from structural steel, and are designed by WBA Engineering staff to properly carry loads, limit deflection, and account for infinite fatigue life.

**QuietRide™ Technology** – ensures no “plate slap” of metal to substrate due to repeated heavy loading. Factory poured high density polyurethane pads are kept in constant contact to the adjacent structure by hardware that is installed to a specified torque. Specially designed nonmetallic compression springs maintain specified hardware tension throughout the expansion joint’s service life.

**Slip Resistant Coating** – high coefficient of friction slip resistant epoxy coating factory applied to ensure years of service under the most aggressive environments.

**Wabo®Crete ii Elastomeric Header** – absorbs traffic impact loads and evenly disperses them into the deck slab, while allowing the system to flex with deck loads.

# Specify

## Serious loading capabilities

Install when concrete substrate is clean, sound, dry, and cured

- Minimize splice points by installing the optional drain trough in longest possible continuous length
- Do not allow any of the Wabo®Crete II elastomeric concrete components to freeze prior to installation. Store all components out of direct sunlight in a clean, dry location between 50°F (10°C) and 90°F (32°C)
- Shelf life of chemical components is 1 year
- Periodically inspect bolt hole filler and edge void sealant and repair localized areas as needed

	3	6	9	12	18	24	30	36	48	60
System Depth	3.75	3.75	4.00	4.00	4.50	4.75	5.50	5.75	6.25	7.25
Blockout Depth	1.25	1.25	1.50	1.50	2.00	2.25	2.50	2.75	3.25	3.75
Blockout Length	7	7	7	7	9	9	9	11	13	15
Header Length*	4	4	5	7	11	14	18	22	29	36
Plate Length	15	16	19	22	30	36	42	50	54	78

\*Header length based upon thermal movements of 20% the maximum gap  
\*\*Project dimensions may vary



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## Technical Expertise

More than 60 years of practical experience and knowledge in the Expansion Control industry allows WBA to develop solutions and make recommendations for the right product choice for your application.

## Innovation

Offering the broadest range of products and services in the construction industry, we are the only company servicing the entire portfolio of Bridge and Highway, Architectural, Parking and Stadium markets. We support these markets with a fully qualified team of professional engineers and designers backed by strong relationships with national testing labs and universities.

## Custom Solutions

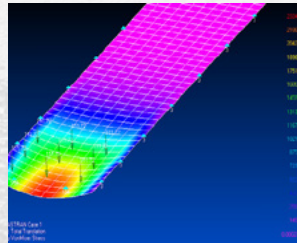
WBA provides more than just technical expertise - we supply engineered solutions that make good sense. We offer a growing range of high performance Wabo® products and systems to provide long lasting solutions to difficult repair problems. We are fully resourced to deliver results and exceed the expectations of our customers.

## Quality

WBA is dedicated in providing the highest quality products and services to our customers. Our professional operations team employs the principles of lean manufacturing, and enterprise resource planning tools, all supported by our formal ISO 9001:2008, RC 14001 and AISC quality management systems.

# Wabo®BusTuff (BTS)

## Heavy duty expansion joint system



## We are your strongest partner for expansion joint systems and responsible solutions.

For 70 years, WBA has proudly led the industry in the manufacture and design of expansion joint systems to meet the unique demands of projects across the globe. We strive to provide solutions that will best fit your needs and relieve the stresses of your project.



For more information visit [watsonbowmanacme.com](http://watsonbowmanacme.com)

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