

# Transflex®

Bridge expansion joint systems



# Transflex®

## Bridge expansion joint systems

The Trelleborg group counts on more than 25,000 employees in more than forty countries and more than 100 years experience in the fabrication of technical rubber products. We make large investments in R&D; we believe that innovation is essential to keep our leading position. Our salesmen, chemists and engineers work at finding the best solutions for our customers, developing all the time new materials, compounds, designs and production methods.

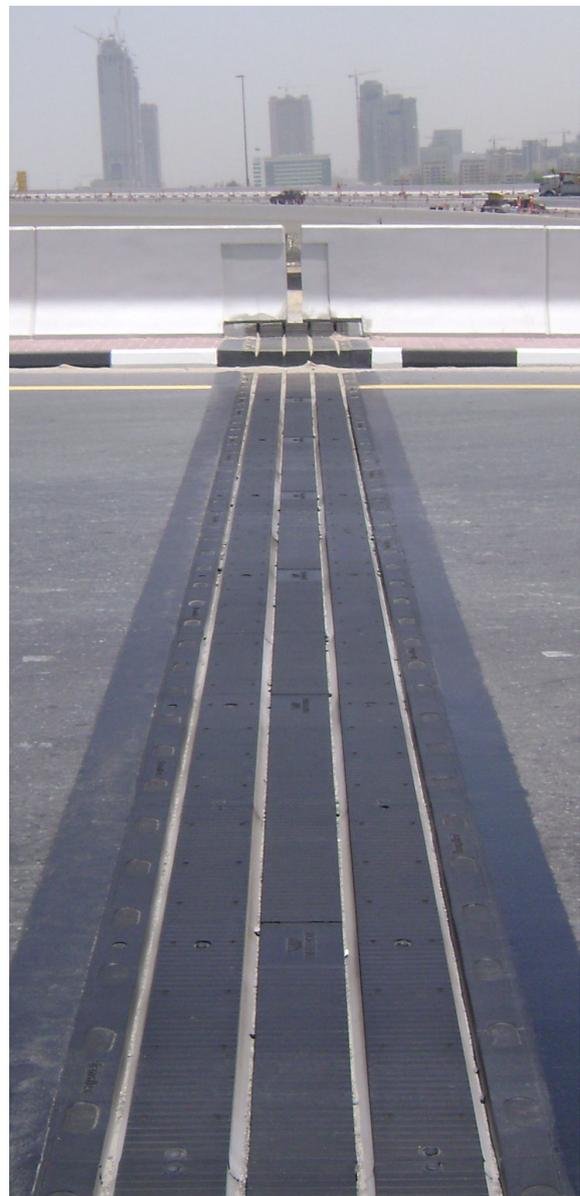
In 1964 an original modular bridge expansion joint system called Transflex® was launched for the first time.

Along these 50 years of the Transflex® system history it has evolved to offer solutions for the great challenges of civil construction, always keeping as a reference worldwide. This long experience has enabled us to have a deep knowledge of our customers needs and develop a complete range of Transflex® devices adapted to every environment.

### **The Transflex® system**

The system consists of moulded steel reinforced rubber modules for smooth transit between two separate surfaces on the same plane, absorbing expansion and contraction, translation and rotation movements.

The Transflex® range is supplied in modules of a given length and is anchored to both sides of the structural joint. All Transflex® models offer the possibility to make special pieces for kerbs, walkways, correction of skewed joints and other contours. In this way, the continuity of the seal is ensured.



## Why a Transflex® joint?

Historically bridges have been one of the greatest challenges of civil engineering. In the last century, the number of bridges and viaducts and their difficulty has increased exponentially and human talent has managed to solve the problems posed by the new challenges.

The bond between deck and the road is one of the weakest points of modern steel and concrete bridge structure.

A proper bond is key to bridge life. The system selected must provide a solid bond, enable transit of persons and goods; but at the same time allow for certain movements for the structure to adapt to the environment and thus endure with time.

The Transflex® device is designed for reinforcing this point so as to:

- absorb movement ranges including those of skewed joints.
- absorb movements from passing traffic, braking, settlement or rotation.



- damp the transmission of severe hits derived from traffic itself, accidents or other causes, to the bridge structure.
- absorb movements produced by the weather and natural forces: expansion or contraction of the structure itself from temperature changes, wind force, seismic movements ....
- provide efficient joint seal with the road, preventing early wear.
- provide comfortable and quiet traffic without damaging the vehicles.

## Features

- In our modules, the rubber covers the steel reinforcement that entails a double benefit: the rubber protects the metallic part from corrosion and the steel reinforces the device structure.
- The rubber used is highly resistant to wear produced by tyres, to impacts and weather. Transflex® devices are designed to endure with time.
- The joint design includes drain channels that provide quick water removal preventing water stagnation. This delays the aging of the joint and reduces the possibility of accidents.
- Quick and simple installation. There is no need to use heavy machinery for the installation of new joints or replacing worn out joints.
- Special pieces for kerbs and walkways are designed, welded and cured to measure, according to the bridge contour, which ensures its uniformity and aesthetics.

Trelleborg provides the following services:

- Advice in the selection of the most adequate device.
- Fabrication and supply of the expansion joint
- Installation or installation supervision of the expansion joint.
- Maintenance work and replacement of the joint when appropriate.

The entire process of design, fabrication, distribution and installation is carried out from the Bridge Expansion Joint department, pertaining to the Infrastructure and Civil Engineering division of the Trelleborg group.

#### **Most adequate solution from beginning to end**

With more than two hundred thousand metres of Transflex® expansion joints installed, we have possibly the largest experience in the market endorsed by our design engineers and technical installation teams. We offer the right solution from the design stage to the final installation of the joint.

- **Design**

Bridge life is subject to the effectiveness of the expansion joints. That is why ensuring a proper design of the expansion joint for the structure and bridge features is essential. Our team of engineers will help to analyse the different factors in order to select the type of module to be installed.

- **Manufacturing**

One of the reasons for the endurance of Transflex® systems rests on the polymer of

the external elastic part: highly resistant to abrasion and impacts; it has been formulated to withstand the action of ozone and an ample range of temperatures without damage.

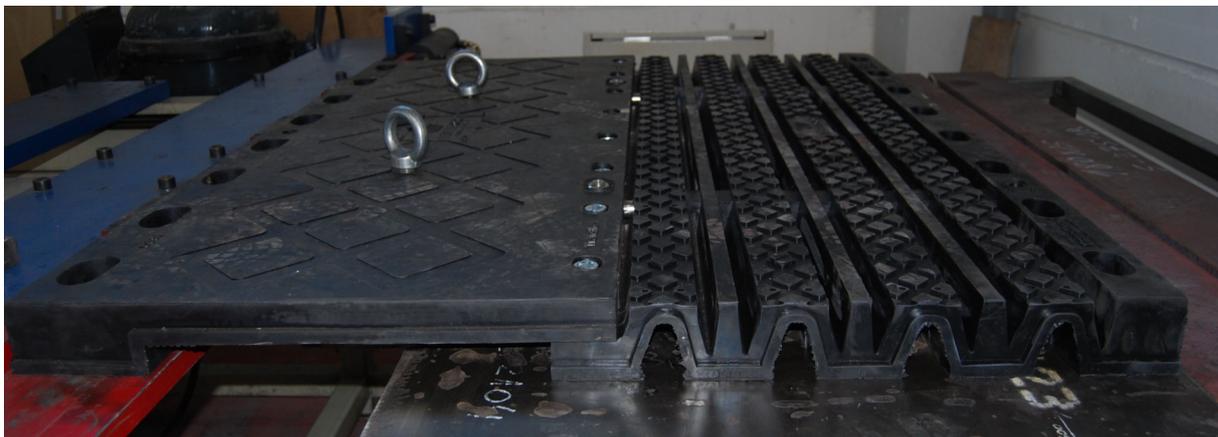
European standards that metallic components comply with as well as technical details of the elastomeric section are shown in the product data sheets.

- **Tests and quality**

Every material used for construction is subject to previous tests to ensure good performance of the final product. Also, periodically and randomly, devices are tested in our own facilities for traverse movements, opening and closing.

- **Installation**

The installation of the Transflex® joint is quick as it needs no structure under the surfacing layer to house it. It is worth mentioning that a proper installation of the expansion joint guarantees a long life and the service of the bridge. The huge experience of our technical teams offers maximum guarantee for an efficient and enduring installation.



Types of Transflex®	Movement absorption	Type of movement	Example of section
<b>Standard</b>	50 - 380 mm	Longitudinal Transverse	
<b>Large movement</b>	400 - 1.600 mm	Longitudinal	
<b>Seismic</b>	350 - 1.440 mm	Longitudinal Transverse	
<b>B7 – B75</b>	50 - 75 mm	Longitudinal Transverse Vertical	

## Benefits

- Impact loads are perfectly absorbed by the device.
- Provide comfortable traffic over the joint without impairing vehicle damping.
- Ensure quiet rolling traffic.
- Outstanding endurance.
- Possibility to accommodate to skewed movements.
- Great capacity to absorb seismic movements.
- Easy and quick installation in case of replacement of worn out joints.
- Low maintenance costs as it is practically nil.
- Rolling traffic helps self cleaning of the device.
- Replacement of damaged parts takes little time, with minimum service interruption for bridge users.
- Technical support along the entire process: device selection, design, fabrication, installation and replacement.
- Short delivery time. We have stock of our standard Transflex® modules.
- After sale service.

## Exclusive Agent for GCC Region



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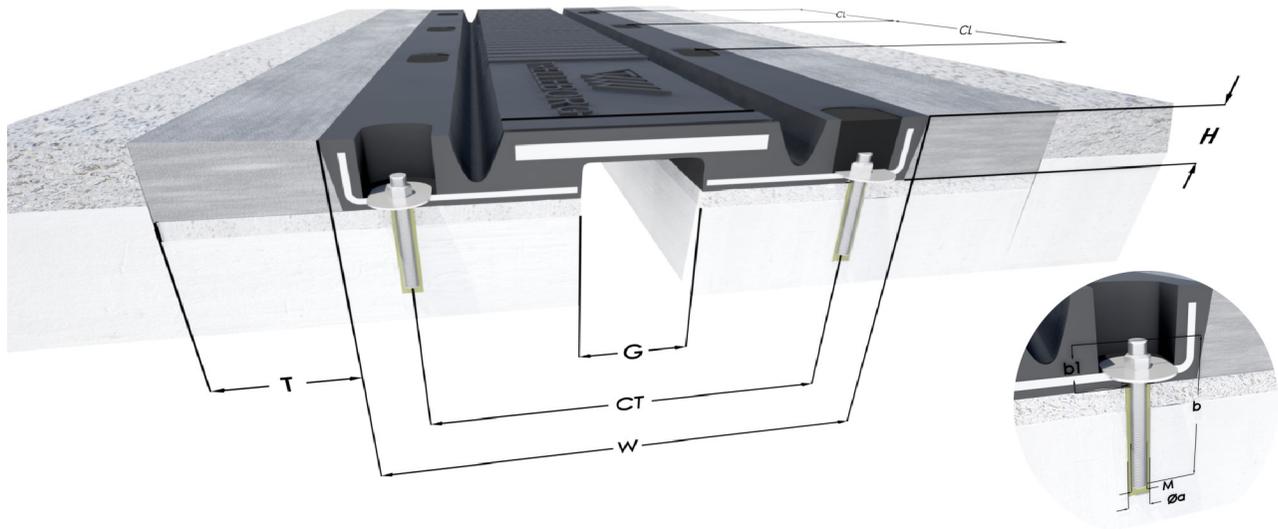


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# Transflex® TR 50 - TR 180

Juntas de dilatación para puentes / *Bridge expansion joints*



## MODELOS Y DIMENSIONES / TYPES AND DIMENSIONS

Transflex	Recorrido / Movement		Módulo / Module								Perno / Stud		
	Longitudinal	Transversal	L	H	W	Peso Weight	CT	CL	G	T	Mxb	Øa	b1
	(mm)	(mm)	(mm)	(mm)	(mm)	(kg)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)
TR 50	50 (±25)	50 (±25)	1750	35	240	25	190	250	40	70	M-12 x 150	14	27
TR 80	80 (±40)	80 (±40)	1830	40	274	37	220	305	55	80	M-14 x 150	16	32
TR 110	110 (±55)	110 (±55)	1830	46	356	56	279	305	70	92	M-14 x 150	16	40
TR 140	140 (±70)	140 (±70)	1830	54	432	78	342	305	85	108	M-20 x 200	22	42
TR 180	180 (±90)	180 (±90)	1830	66	470	106	390	305	105	132	M-20 x 200	22	45

CT: Distancia transversal entre anclajes / *Transverse distance between anchors*  
 CL: Distancia longitudinal entre anclajes / *Longitudinal distance between anchors*  
 T: Anchura de la transición / *Transition width*

M: Diámetro del perno / *Bolt diameter*  
 Øa: Diámetro mínimo del taladro / *Minimum coring drill diameter*  
 b1: Altura del perno sobre cama de mortero / *Bolt height over bedding mortar*

G: Máxima abertura estructural en el momento de la instalación para permitir movimientos nominales / *Maximum structural gap at installation to allow nominal movements*

\* Los movimientos longitudinales y transversales mostrados en el cuadro se pueden realizar de forma simultánea / *Longitudinal and transversal movements shown in the table can be performed simultaneously.*

\*\* Los modelos de TR 50 a TR 180 absorben un movimiento vertical de hasta 20mm / *Transflex models TR 50 - TR 180 are capable of absorbing vertical movements of up to 20mm*

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# Transflex® TR 50 - TR180

## Bridge expansion joints

The Transflex® range is supplied in modules of specific length to be anchored to both sides of the structural joint.

Special pieces for kerbs, walkways, skewed ends or any road contour can be manufactured for any Transflex® model.

Please, contact us at: [expandite@trelleborg.com](mailto:expandite@trelleborg.com)

### Main applications:

- ◆ Bridges with movement range less than 180 mm
- ◆ Medium size structures
- ◆ Car parks
- ◆ Pedestrian bridges

### TECHNICAL DATA:

Elastomer properties	Value	Test method
Hardness	62±5 Shore A	ASTM D2240
Tensile strength	>160 kgs/cm <sup>2</sup>	ASTM D412/NFT46002
Elongation at break	>425%	ASTM D412/ NFT46002
Rubber-steel adhesion	11,8 min N/mm	ASTM D429 Method B
Low temperature resistance	-30°C	ASTM D2137
Ozone resistance	No cracks	ASTM D1149 Method B 25 ppcm (48 hours at 38 °C)
Compression set	35% max def	ASTM D395 Method B (24 hours at 70 °C)
Thermal aging	< 5 Shore A -15% Tensile strength -25% Elongation at break	ASTM D573 hot air (70 hours at 70 °C)
Resilience	50%	DIN 53512

### Metal component:

Steel fabricated acc. ASTM Type A572 S355

#### Notes:

- We strive to provide reliable technical information of our products. Recommendations or advice on their use have been made in good faith based on our experience. However, it is the user or designer responsibility to ensure that each product satisfies the intended purpose and conditions for use are adequate.
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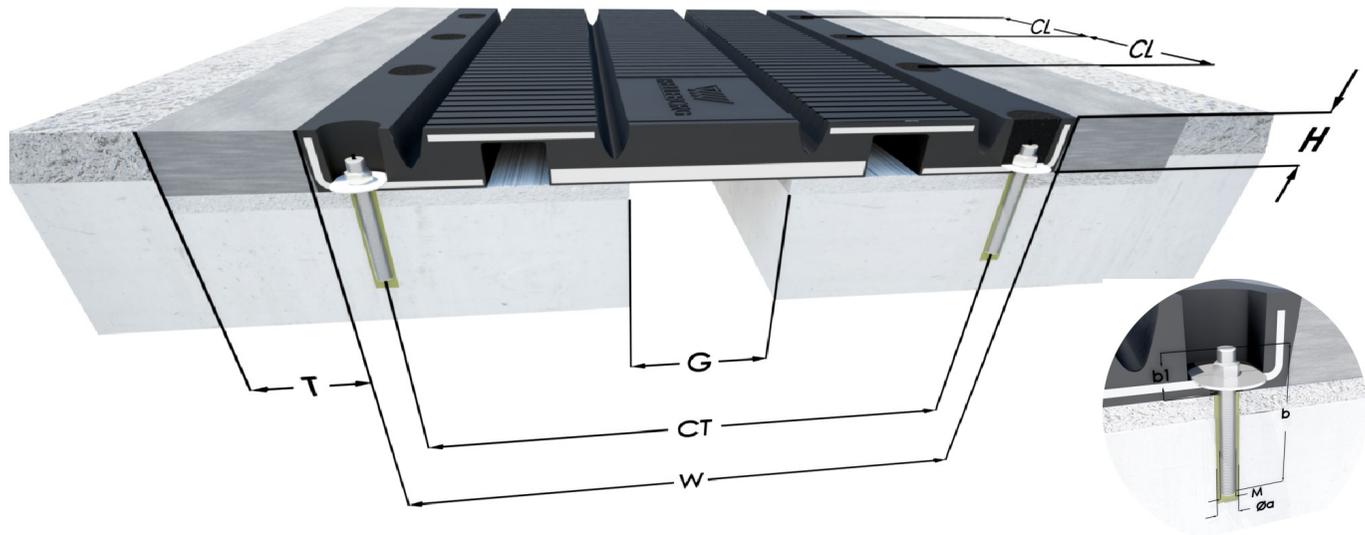
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# Transflex® TR 230 - TR 380

Juntas de dilatación para puentes / *Bridge expansion joints*



## MODELOS Y DIMENSIONES / TYPES AND DIMENSIONS

Transflex	Recorrido / Movement		Módulo / Module								Perno / Stud		
	Longitudinal (mm)	Transversal (mm)	L (mm)	H (mm)	W (mm)	Peso Weight (kg)	CT (mm)	CL (mm)	G (mm)	T (mm)	Mxb (mm)	Øa (mm)	b1 (mm)
TR 230	230 (±115)	230 (±115)	1830	63	750	192	661	305	125	130	M-20 x 200	22	50
TR 270	270 (±135)	270 (±135)	1830	73	888	273	798	305	155	146	M-20 x 200	22	50
TR 380	380 (±190)	380 (±190)	1830	96	1202	445	1091	305	210	192	M-24 x 220	26	60

CT: Distancia transversal entre anclajes / *Transverse distance between anchors*  
 CL: Distancia longitudinal entre anclajes / *Longitudinal distance between anchors*  
 T: Anchura de la transición / *Transition width*

M: Diámetro del perno / *Bolt diameter*  
 Øa: Diámetro mínimo del taladro / *Minimum coring drill diameter*  
 b1: Altura del perno sobre cama de mortero / *Bolt height over bedding mortar*

G: Máxima abertura estructural en el momento de la instalación para permitir movimientos nominales / *Maximum structural gap at installation to allow nominal movements*

\* Los movimientos longitudinales y transversales mostrados en el cuadro se pueden realizar de forma simultánea / *Longitudinal and transversal movements shown in the table can be performed simultaneously.*

\*\* Los modelos de TR 230 a TR 380 absorben un movimiento vertical de hasta 20mm / *Transflex models TR 230 - TR 380 are capable of absorbing vertical movements of up to 20mm*

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# Transflex® TR 270 - TR 380

## Bridge expansion joints

The Transflex® range is supplied in modules of specific length to be anchored to both sides of the structural joint.

Special pieces for kerbs, walkways, skewed ends or any road contour can be manufactured for any Transflex® model.

Please, contact us at: [expandite@trelleborg.com](mailto:expandite@trelleborg.com)

### Main applications:

- ◆ Structures with movement range between 270mm and 380mm
- ◆ Large structures
- ◆ Viaducts and bridges in seismic areas

### TECHNICAL DATA:

Elastomer properties	Value	Test method
Hardness	62±5 Shore A	ASTM D2240
Tensile strength	>160 kgs/cm <sup>2</sup>	ASTM D412/NFT46002
Elongation at break	>425%	ASTM D412/ NFT46002
Rubber-steel adhesion	11,8 min N/mm	ASTM D429 Method B
Low temperature resistance	-30°C	ASTM D2137
Ozone resistance	No cracks	ASTM D1149 Method B 25 ppcm (48 hours at 38 °C)
Compression set	35% max def	ASTM D395 Method B (24 hours at 70 °C)
Thermal aging	< 5 Shore A -15% Tensile strength -25% Elongation at break	ASTM D573 hot air (70 hours at 70 °C)
Resilience	50%	DIN 53512

### Metal component:

Steel fabricated acc. ASTM Type A572 S355

#### Notes:

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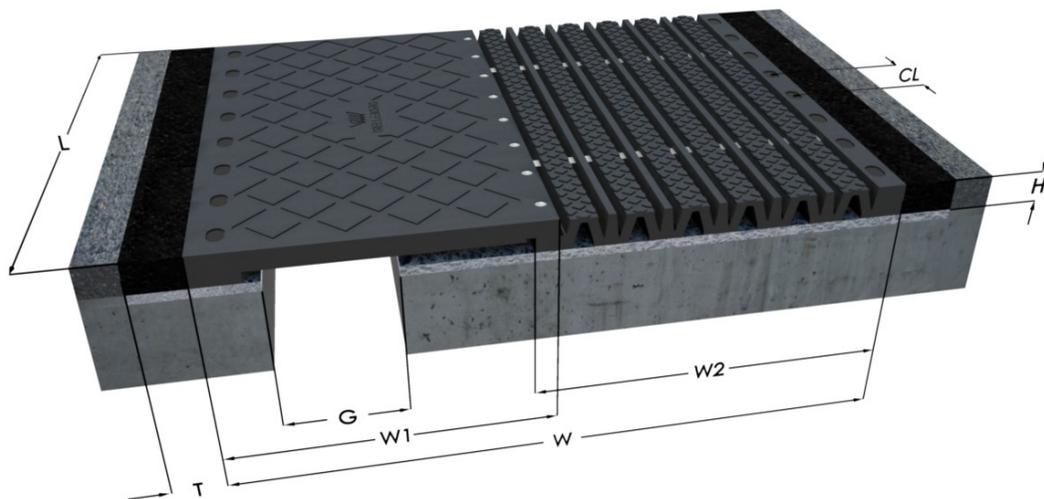
# Transflex® 1600 - 3200

## High Movement bridge expansion joints

The High Movement Transflex® expansion joints have been designed to cover large movements. They consist of two modules, the movement module and the bridging module. The movement module is the “mobile” section of the joint, made of rubber and steel, aimed to accommodate the expected movements. The bridging module is the “fixed” section of the joint, aimed to bridge the structural opening.

The High Movement Transflex® expansion joints absorb large movements while providing remarkable comfort to traffic, effective sealing, low maintenance and easy replacement.

**High Movement Transflex® models are numbered from 1600 to 3200, and cover a movement range from 400mm to 800mm.**



Models	Movement (mm)	Module									Stud		
		L (mm)	H (mm)	W (mm)	W1 (mm)	W2 (mm)	Wgt. (kg)	CL (mm)	G (mm)	T (mm)	Mxb (mm)	Øa (mm)	b1 (mm)
1600	400 (±200)	1600	85	1280	675	675	460	200	220	170	M-20 x 200	22	5,5
2000	500 (±250)	1600	85	1520	765	815	585	200	270	170	M-20 x 200	22	5,5
2400	600 (±300)	1600	85	1760	875	955	710	200	320	170	M-20 x 200	22	5,5
2800	700 (±350)	1600	85	2000	965	1095	765	200	370	170	M-20 x 200	22	5,5
3200	800 (±400)	1600	85	2240	1065	1235	930	200	420	170	M-20 x 200	22	5,5

W1: Length of the bridging module

W2: Length of the movement module

CL: Longitudinal distance between anchors

G: Maximum structural gap of the Transflex element at installation

T: Transition width

M: Bolt diameter

Øa: Bolt hole diameter

b1: Recommended height of the bolt over the mortar bed

# Transflex® 1600 - 3200

## High Movement bridge expansion joints

The Transflex® range is supplied in modules of specific length to be anchored to both sides of the structural joint.

Special pieces for kerbs, walkways, skewed ends or any road contour can be manufactured for any Transflex® model.

Please, contact us at: [expandite@trelleborg.com](mailto:expandite@trelleborg.com)

### Main applications:

- ◆ Structures with movement range between 400mm and 800mm
- ◆ Very large structures
- ◆ Very high viaducts and bridges

### TECHNICAL DATA:

Elastomer properties	Value	Test method
Hardness	62±5 Shore A	ASTM D2240
Tensile strength	>160 kgs/cm <sup>2</sup>	ASTM D412/NFT46002
Elongation at break	>425%	ASTM D412/ NFT46002
Rubber-steel adhesion	11,8 min N/mm	ASTM D429 Method B
Low temperature resistance	-30°C	ASTM D2137
Ozone resistance	No cracks	ASTM D1149 Method B 25 ppcm (48 hours at 38 °C)
Compression set	35% max def	ASTM D395 Method B (24 hours at 70 °C)
Thermal aging	< 5 Shore A -15% Tensile strength -25% Elongation at break	ASTM D573 hot air (70 hours at 70 °C)
Resilience	50%	DIN 53512

### Metal component:

Steel fabricated acc. ASTM Type A36 DIN 17-100 Type ST 37-2

#### Notes:

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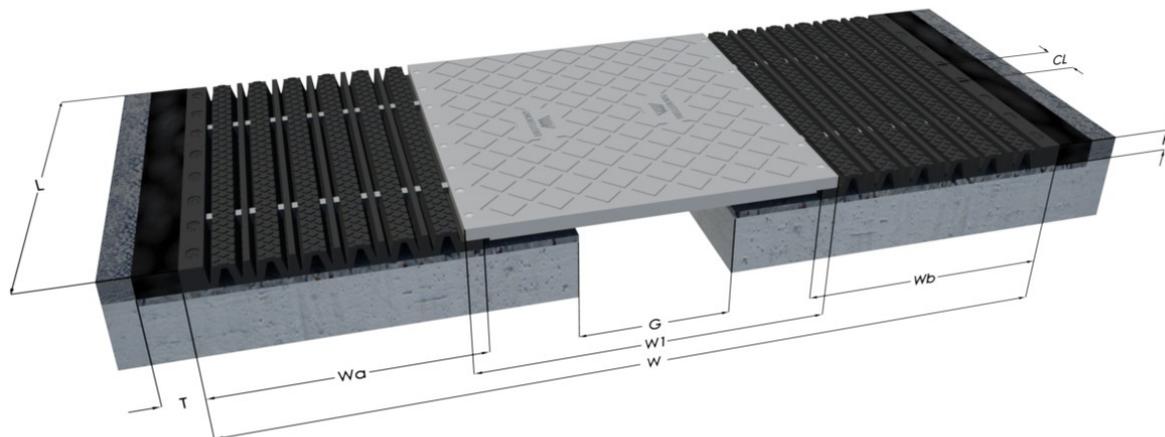
# Transflex® 3600 - 6400

## High Movement bridge expansion joints

The High Movement Transflex® expansion joints have been designed to cover large movements. They consist of two modules, the movement module and the bridging module. The movement module is the “mobile” section of the joint, made of rubber and steel, aimed to accommodate the expected movements. The bridging module is the “fixed” section of the joint, aimed to bridge the structural opening.

The High Movement Transflex® expansion joints absorb large movements while providing remarkable comfort to traffic, effective sealing, low maintenance and easy replacement.

**High Movement Transflex® models are numbered from 3600 to 6400, and cover a movement range from 900mm to 1600mm.**



Models	Movement (mm)	Module										Stud		
		L (mm)	H (mm)	W (mm)	W1 (mm)	W2 (mm)		Wgt. (kg)	CL (mm)	G (mm)	T (mm)	Mxb (mm)	Øa (mm)	b1 (mm)
						W(a)	W(b)							
<b>3600</b>	900 (±450)	1600	85	2460	1090	675	815	1050	200	470	170	M-20 x 200	22	5,5
<b>4000</b>	1000 (±500)	1600	85	2700	1190	815	815	1250	200	520	170	M-20 x 200	22	5,5
<b>4400</b>	1100 (±550)	1600	85	2940	1290	815	955	1440	200	570	170	M-20 x 200	22	5,5
<b>4800</b>	1200 (±600)	1600	85	3180	1390	955	955	1630	200	620	170	M-20 x 200	22	5,5
<b>5200</b>	1300 (±650)	1600	85	3420	1490	955	1095	1850	200	670	170	M-20 x 200	22	5,5
<b>5600</b>	1400 (±700)	1600	85	3660	1590	1095	1095	1980	200	720	170	M-20 x 200	22	5,5
<b>6000</b>	1500 (±750)	1600	85	3900	1690	1095	1235	2165	200	770	170	M-20 x 200	22	5,5
<b>6400</b>	1600 (±800)	1600	85	4140	1790	1235	1235	2350	200	820	170	M-20 x 200	22	5,5

W1: Length of the bridging module

W2: Length of the movement module

CL: Longitudinal distance between anchors

G: Maximum structural gap of the Transflex element at installation

T: Transition width

M: Bolt diameter

Øa: Bolt hole diameter

b1: Recommended height of the bolt over the mortar bed

# Transflex® 3600 - 6400

## High Movement bridge expansion joints

The Transflex® range is supplied in modules of specific length to be anchored to both sides of the structural joint.

Special pieces for kerbs, walkways, skewed ends or any road contour can be manufactured for any Transflex® model.

Please, contact us at: [expandite@trelleborg.com](mailto:expandite@trelleborg.com)

### Main applications:

- ◆ Structures with movement range between 900mm and 1600mm
- ◆ Very large structures
- ◆ Very high viaducts and bridges

### TECHNICAL DATA:

Elastomer properties	Value	Test method
Hardness	62±5 Shore A	ASTM D2240
Tensile strength	>160 kgs/cm <sup>2</sup>	ASTM D412/NFT46002
Elongation at break	>425%	ASTM D412/ NFT46002
Rubber-steel adhesion	11,8 min N/mm	ASTM D429 Method B
Low temperature resistance	-30°C	ASTM D2137
Ozone resistance	No cracks	ASTM D1149 Method B 25 ppcm (48 hours at 38 °C)
Compression set	35% max def	ASTM D395 Method B (24 hours at 70 °C)
Thermal aging	< 5 Shore A -15% Tensile strength -25% Elongation at break	ASTM D573 hot air (70 hours at 70 °C)
Resilience	50%	DIN 53512

### Metal component:

Steel fabricated acc. ASTM Type A36 DIN 17-100 Type ST 37-2

#### Notes:

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# Seismic Transflex® 1600-3200

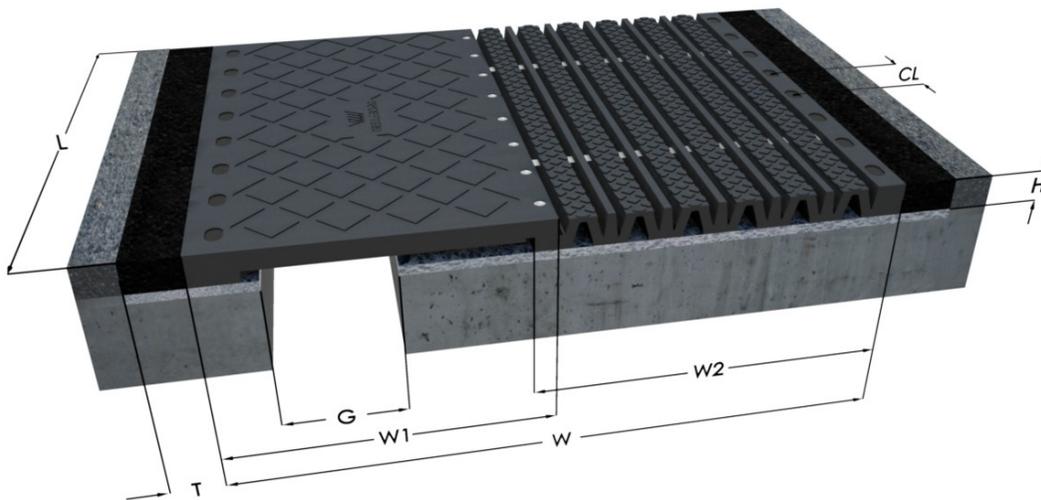
## High Movement bridge expansion joints

The demand of expansion joints that support larger movement ranges increases, as the span of new structures increases. The answer to this challenge is this Seismic Transflex® model, suitable not only for structures in seismic areas, but also for bridges and viaducts with large spans.

The Seismic Transflex® expansion joints consist of two modules. The movement module which is the “mobile” section of the joint, made of rubber and steel, aimed to accommodate the expected movements. And the bridging module which is the “fixed” section of the joint, aimed to bridge the structural opening.

The Seismic Transflex® expansion joints allow absorbing large movements, while providing remarkable comfort to traffic, effective sealing, low maintenance and easy replacement.

**High Movement Transflex® models are numbered from 1600 to 3200, and cover a movement range from 350mm to 720mm.**



Models	Module											Stud		
	Movement (mm)	Transversal Movement (mm)	L (mm)	H (mm)	W (mm)	W1 (mm)	W2 (mm)	Wgt. (kg)	CL (mm)	G (mm)	T (mm)	Mxb (mm)	Øa (mm)	b1 (mm)
<b>1600 S</b>	350 (±175)	200 (±100)	1600	85	1280	675	675	460	200	220	170	M-20 x 200	22	5,5
<b>2000 S</b>	450 (±225)	284 (±142)	1600	85	1520	765	815	585	200	270	170	M-20 x 200	22	5,5
<b>2400 S</b>	540 (±270)	340 (±170)	1600	85	1760	875	955	710	200	320	170	M-20 x 200	22	5,5
<b>2800 S</b>	630 (±315)	388 (±194)	1600	85	2000	965	1095	765	200	370	170	M-20 x 200	22	5,5
<b>3200 S</b>	720 (±360)	444 (±222)	1600	85	2240	1065	1235	930	200	420	170	M-20 x 200	22	5,5

W1: Length of the bridging module

W2: Length of the movement module

CL: Longitudinal distance between anchors

G: Maximum structural gap of the Transflex element at installation

T: Transition width

M: Bolt diameter

Øa: Bolt hole diameter

b1: Recommended height of the bolt over the mortar bed

# Seismic Transflex® 1600 - 3200

## High Movement bridge expansion joints

The Transflex® range is supplied in modules of specific length to be anchored to both sides of the structural joint.

Special pieces for kerbs, walkways, skewed ends or any road contour can be manufactured for any Transflex® model.

Please, contact us at: [expandite@trelleborg.com](mailto:expandite@trelleborg.com)

### Main applications:

- ◆ Structures with movement range between 350 mm and 720 mm
- ◆ Large structures with longitudinal and transverse movements
- ◆ Viaducts and bridges in seismic areas

### TECHNICAL DATA:

Elastomer properties	Value	Test method
Hardness	62±5 Shore A	ASTM D2240
Tensile strength	>160 kgs/cm <sup>2</sup>	ASTM D412/NFT46002
Elongation at break	>425%	ASTM D412/ NFT46002
Rubber-steel adhesion	11,8 min N/mm	ASTM D429 Method B
Low temperature resistance	-30°C	ASTM D2137
Ozone resistance	No cracks	ASTM D1149 Method B 25 ppcm (48 hours at 38 °C)
Compression set	35% max def	ASTM D395 Method B (24 hours at 70 °C)
Thermal aging	< 5 Shore A -15% Tensile strength -25% Elongation at break	ASTM D573 hot air (70 hours at 70 °C)
Resilience	50%	DIN 53512

### Metal component:

Steel fabricated acc. ASTM Type A36 DIN 17-100 Type ST 37-2

#### Notes:

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## Transflex® B7 - B75

### Structural expansion joints

Designed to accommodate movements of overhead structures with minimum load transmission to decks or slabs. These joints provide maximum traffic comfort and durability.

Both models are supplied in 1.75m modules to be anchored to the deck or slab, using chemically fixed anchors.

Movement is absorbed by deformation of a strong central membrane. Impact loads are absorbed by the elastomer and are not directly transmitted to the anchor points.

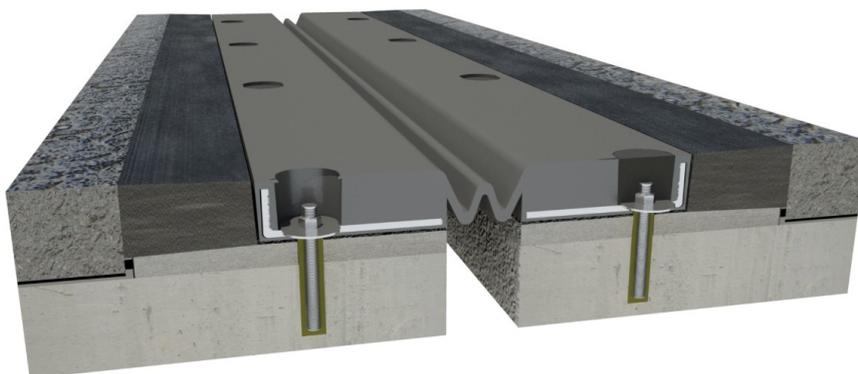
#### Waterproofing:

In urban car parks and bridges waterproofing joints are recommended. This is achieved by inserting a continuous membrane for channeling the water, paying particular attention to areas with walls and junctions.

**Transflex® models B7 y B75, cover a movement range of 50mm and 75mm, respectively, and oblique movements of up to 90°.**

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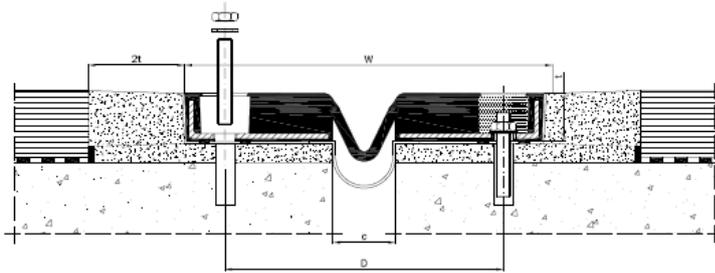
#### Expansion Joint Transflex® B-75



#### Main applications:

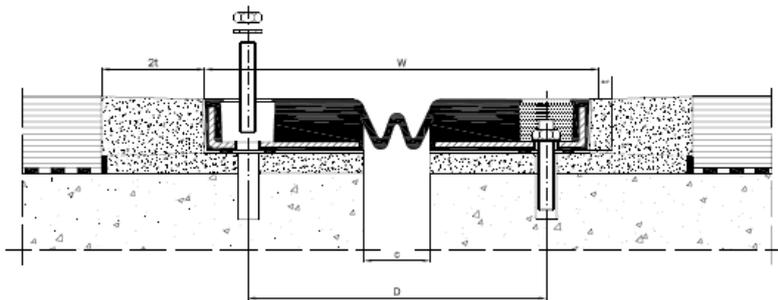
- ◆ Bridge decks
- ◆ Overhead pedestrian bridges
- ◆ Multi-storey car parks

## Transflex® Expansion Joint B-7



Movement				
50 mm				
Dimensions (mm)				
t	W	D	C min	C máx
34	209	148	25	40

## Transflex® Expansion Joint B-75



Movement				
75 mm				
Dimensions (mm)				
t	W	D	C min	C máx
35	220	162	35	50

### TECHNICAL DATA:

Elastomer properties	Value	Test method
Hardness	55±5 Shore A	ASTM D2240
Tensile strength	> 135 kgs/cm <sup>2</sup>	ASTM D412
Elongation at break	> 450%	ASTM D412 / NFT46002
Rubber-steel adhesion	11,8 min N/mm	ASTM D429 Method B
Low temperature resistance	-30°C	ASTM D2137
Ozone resistance	No cracks	ASTM D1149 Method B 25 ppcm (48 hours at 38 °C)
Compression set	30% max def	ASTM D395 Method B (24 hours at 70 °C)
Thermal aging	<15 Shore A -25% Tensile strength -40% Elongation at break	ASTM D573 hot air (70 hours at 70 °C)
Resilience	50%	DIN 53512

### Metal component:

Steel fabricated acc. ASTM Type A572 S355

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# Transflex® Special pieces

## Bridge expansion joints

Special pieces for kerbs, walkways, skewed ends or any road contour, can be manufactured for any Transflex® model, with the purpose of providing a continuous sealing of the joint surface for a smooth transit, and to achieve an aesthetically perfect finish.

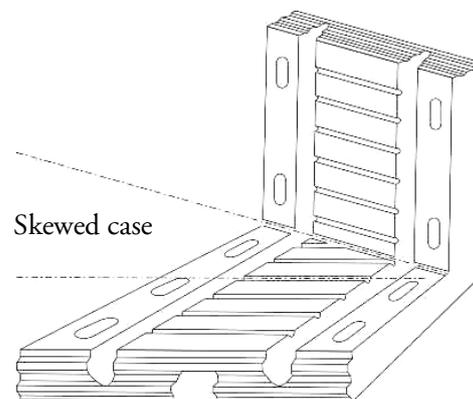
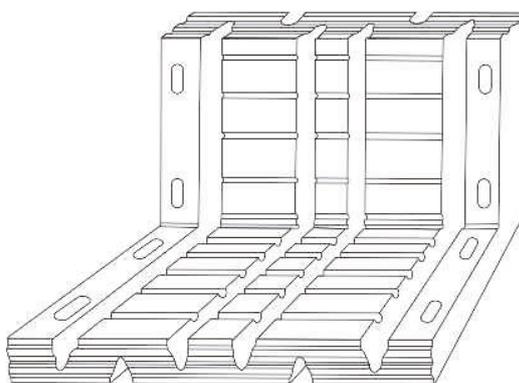
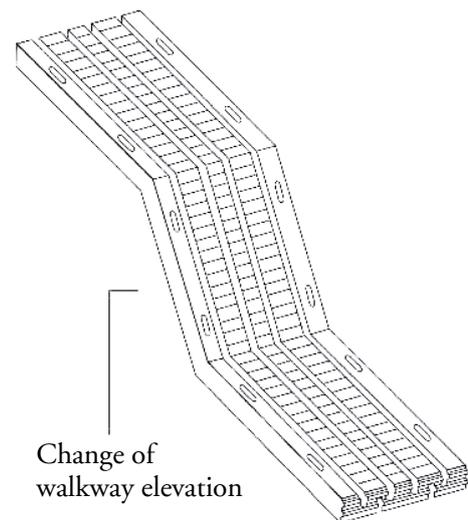
All these pieces are hand made from standard modules, with a continuous internal metallic structure, which provide the same performance as straight modules.

Every piece is designed, approved and manufactured under request.

Please, contact us at: [expandite@trelleborg.com](mailto:expandite@trelleborg.com)

### Main applications:

- ◆ Kerbs
- ◆ Walkways
- ◆ Skewed ends



Examples of special pieces

# Transflex® Special pieces

## Bridge expansion joints

### TECHNICAL DATA:

Elastomer properties	Value	Test method
Hardness	62±5 Shore A	ASTM D2240
Tensile strength	>160 kgs/cm <sup>2</sup>	ASTM D412/NFT46002
Elongation at break	>425%	ASTM D412/ NFT46002
Rubber-steel adhesion	11,8 min N/mm	ASTM D429 Method B
Low temperature resistance	-30°C	ASTM D2137
Ozone resistance	No cracks	ASTM D1149 Method B 25 ppcm (48 hours at 38 °C)
Compression set	35% max def	ASTM D395 Method B (24 hours at 70 °C)
Thermal aging	< 5 Shore A -15% Incr. Load -25% Inc. Strain	ASTM D573 hot air (70 hours at 70 °C)
Resilencia	50%	DIN 53512

**Metal component:**  
Steel fabricated acc. ASTM Type A572 S355

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# Compression profiles

## For joints with edge protection

### Description

Our compression profiles are rubber sealing sections that absorb movements and provide comfortable traffic. The benefits of the system depend on the mechanical properties of the sealing section, proper housing design and execution and quality of the edge guard and paving in the vicinity of the joint.

### Design

The cross section of these profiles is reinforced bees panel, a design that allows maintaining a suitable pressure against the walls of the joint, without causing permanent deformation. The profiles are used in serrated or pre-shaped joints, being very important a correct joint geometry and dimensions of the joint in the structure to ensure correct performance.

Our technical department will give advice on the adequate system for your needs.

Please, contact us at: [expandite@trelleborg.com](mailto:expandite@trelleborg.com)

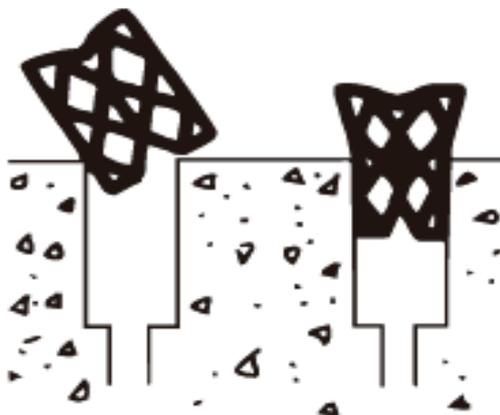
### Drains

In black pavement, the inclusion of effective drainage in the edge protector area affects decisively in the life of the joint. In this way, pumping effect and subsequent wear of the asphalt layer is prevented.

### Waterproof

Properly installed compression profiles provide a sufficient degree of waterproof in most cases. However, when waterproof is a mayor need, as in car parks, additional or alternative Transflex systems must be designed.

**Three versions of the profile are offered to accommodate movement ranges of 25, 42 and 50mm.**

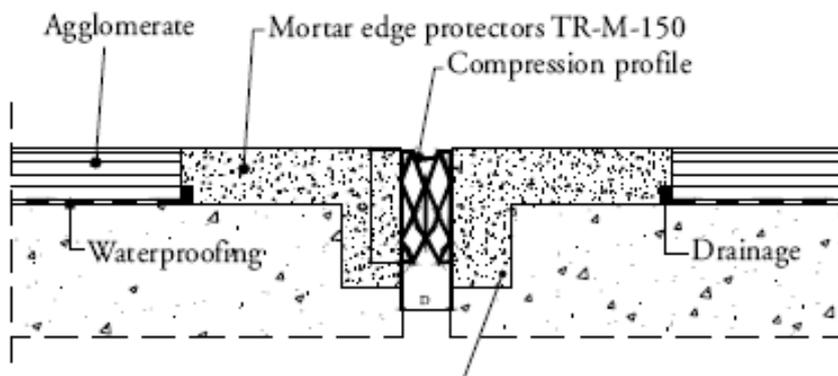


Compression profile

### Benefits:

- Excellent recovery properties
- Long life with no maintenance
- Abrasion and impact resistant
- Thermal stability
- Weather resistant

## Example of compression profile



### Main applications:

Recommended for sealing expansion joints, including skewed joints, in bridge decks and other overhead structures.

Section features	J250	J350	J450
Weight	3,0 kg/m	3,8 kg/m	5,6 kg/m
Hardness at 25°C	65 ±5 Shore A	65 ±5 Shore A	65 ±5 Shore A
Tensile strength	110 kg/cm <sup>2</sup>	110 kg/cm <sup>2</sup>	110 kg/cm <sup>2</sup>
Elongation at break	400% min	400% min	400% min
Movement range	25 mm	42 mm	50 mm
Dim. of section at rest (height – width)	70-64 mm	89-89 mm	114-114 mm
Dim. installed section (height-width)	89 - 29 to 54 mm	108 - 34 to 76 mm	152 - 46 to 97 mm

### Features of TR-M150 mortar

	24 hours	7 days	28 days
Compression strength	260 kg/cm <sup>2</sup>	560 kg/cm <sup>2</sup>	570 kg/cm <sup>2</sup>
Flexural tensile strength	46 kg/cm <sup>2</sup>	55 kg/cm <sup>2</sup>	61 kg/cm <sup>2</sup>
Storage	12 months in original packing in cool and dry place (below 25°C)		
Packing	25 kg bag		

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