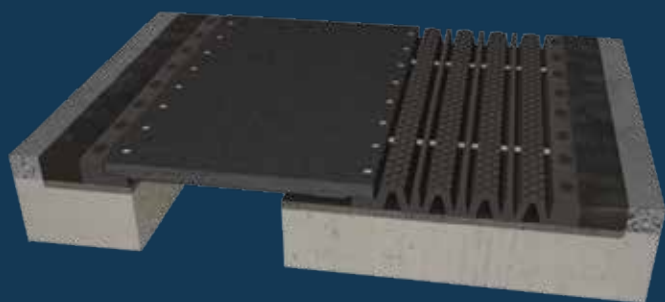


# EXPANSION JOINTS

## TRANSFLEX HM

MAT





# Introduction

## THE 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 joint and other contours. In this way, the continuity of the seal is ensured.

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.

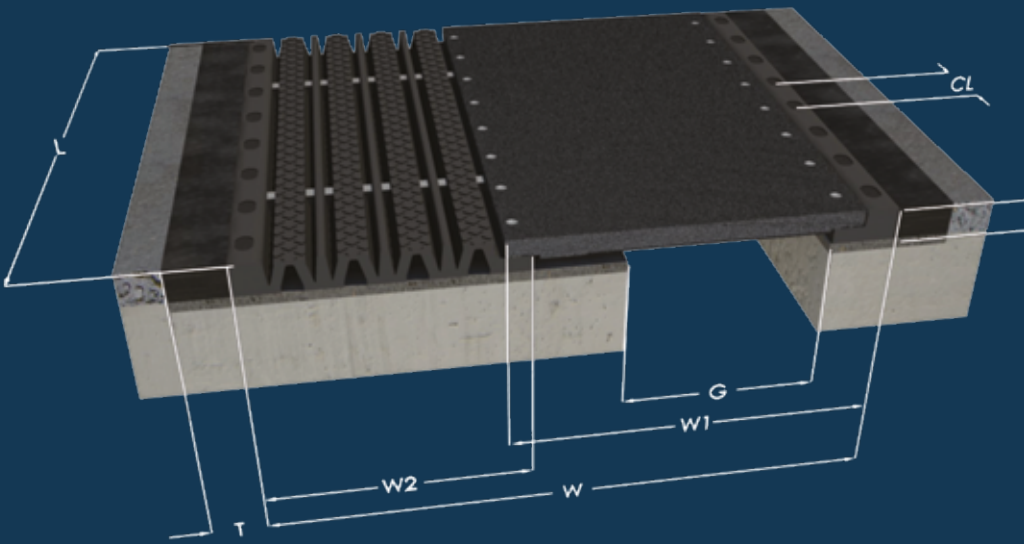


## FEATURES

- The rubber used is highly resistant to wear produced by tyres, to impacts and weather.
- 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 prices for kerbs and walkways are designed, welded and cured to measure, according to the bridge contour, which ensures its uniformity and aesthetics.

## BENEFITS

- Impact loads are absorbed by the joint
- Provide comfortable riding characteristics without impairing vehicle handling
- Ensure quiet rolling traffic
- Allows skewed movements
- Easy and quick to install
- Ideal for replacement and maintenance schemes
- Replacement of damaged parts with minimum service interruption
- Excellent technical service - pre and post installation



High movement Transflex modules are numbered from 1600 to 3200, and cover a movement range from 400mm to 800mm.

## 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.

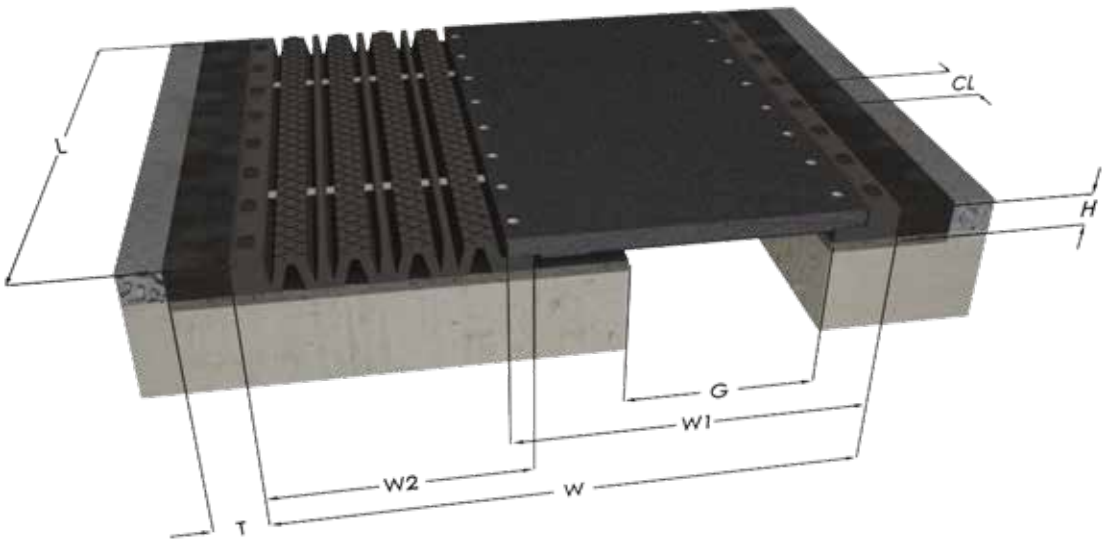
The movement module is the 'mobile' section of the joint, made of rubber and steel, aimed to accommodate the expected movements. The bridging module is the 'fixed' section of the joint, aimed to bridge the structural opening.

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

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

Models	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)
1600	400 (±200)	1600	85	1280	675	675	460	200	220	170	M-20 x200	22	55
2000	500 (±250)	1600	85	1520	765	815	585	200	270	170	M-20 x200	22	55
2400	600 (±300)	1600	85	1760	875	955	710	200	320	170	M-20 x200	22	55
2800	700 (±350)	1600	85	1990	965	1095	765	200	370	170	M-20 x200	22	55
3200	800 (±400)	1600	85	2230	1065	1235	930	200	420	170	M-20 x200	22	55





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

SEISMIC TRANSFLEX 1600-3200 - HIGH MOVEMENT BRIDGE EXPANSION JOINTS

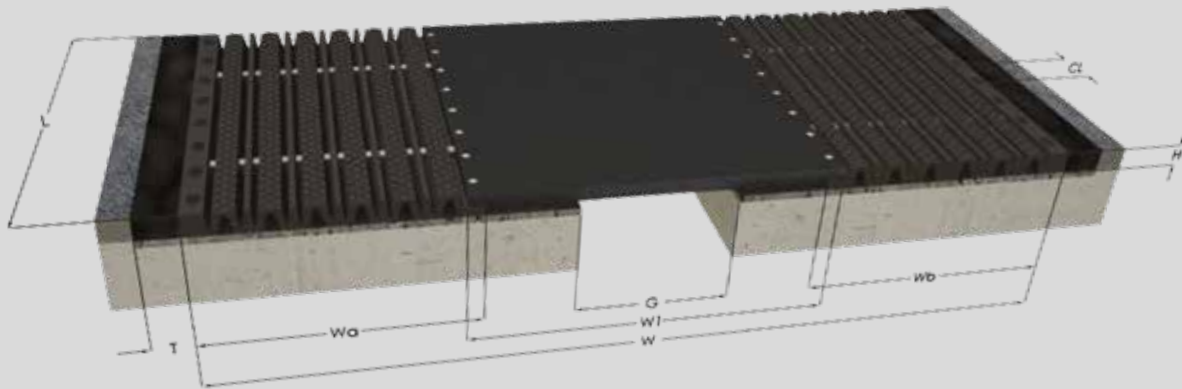
The demand of expansion joints that support larger movement ranges increases, as the span of new structures increases. The answer to this challenge is the Seismic Transflex model, suitable not only for structures in seismic areas, but also bridges and viaducts with large spans.

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.

The bridging module which is the 'fixed' section of the joint, aimed to bridge the structural opening.

- 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 (mm)
- b1: Recommended height of the bolt over the mortar bed

Models	Movement	Transversal 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 s	350 (±175)	200 (±100)	1600	85	1280	675	675	460	200	220	170	M-20 x 200	22	55
2000 s	450 (±225)	284 (±142)	1600	85	1520	775	815	585	200	270	170	M-20 x 200	22	55
2400 s	540 (±270)	340 (±170)	1600	85	1760	875	955	710	200	320	170	M-20 x 200	22	55
2800 s	630 (±315)	388 (±194)	1600	85	1990	965	1095	765	200	370	170	M-20 x 200	22	55
3200 s	720 (±360)	444 (±222)	1600	85	2230	1065	1235	930	200	420	170	M-20 x 200	22	55



High movement Transflex modules are numbered from 3600 to 6400, and cover a movement range from 900mm to 1600mm.

TRANSFLEX 3600-6400 - HIGH MOVEMENT BRIDGE EXPANSION JOINTS

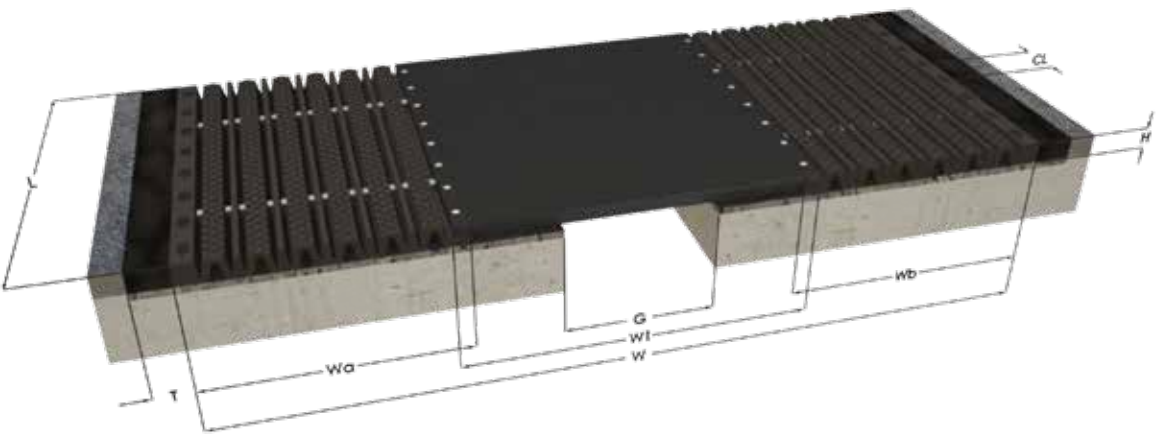
The high movement Transflex expansion joints have been designed to cover large movements. They consist of two modules, the movement module and the bridging module.

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.

- 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

Models	Movement (mm)	L (mm)	H (mm)	W (mm)	W1 (mm)	W2		Wgt (kg)	CL (mm)	G (mm)	T (mm)	Mxb (mm)	Øa (mm)	b1 (mm)
						W(a)	W(b)							
3600	900 (±450)	1600	85	2460	1090	675	815	1050	200	470	170	M-20 x 200	22	5.5
4000	1000 (±500)	1600	85	2700	1190	815	815	1250	200	520	170	M-20 x 200	22	5.5
4400	1100 (±550)	1600	85	2940	1290	815	955	1440	200	570	170	M-20 x 200	22	5.5
4800	1200 (±600)	1600	85	3180	1390	955	955	1630	200	620	170	M-20 x 200	22	5.5
5200	1300 (±650)	1600	85	3420	1490	955	1095	1850	200	670	170	M-20 x 200	22	5.5
5600	1400 (±700)	1600	85	3660	1590	1095	1095	1980	200	720	170	M-20 x 200	22	5.5
6000	1500 (±750)	1600	85	3900	1690	1095	1235	2165	200	770	170	M-20 x 200	22	5.5
6400	1600 (±800)	1600	85	4140	1790	1235	1235	2350	200	820	170	M-20 x 200	22	5.5



High Movement Seismic Transflex models are numbered from 3600 to 6400, and cover a movement range from 800mm to 1440mm.

SEISMIC TRANSFLEX 3600 - 6400 - 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 Trasflex 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 three modules. Two movement modules which are the “mobile” sections 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 high movement Transflex expansion joints absorb large movements while providing remarkable comfort to traffic, effective sealing, low maintenance and easy replacement.

- 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

Module															
Models	Movement	Transversal Movement (mm)	L (mm)	H (mm)	W (mm)	W1 (mm)	W2		Wgt (kg)	CL (mm)	G (mm)	T (mm)	Mxb (mm)	Øa (mm)	b1 (mm)
							W(a)	W(b)							
3600 (s)	800 (±400)	484 (±242)	1600	85	2460	1090	675	815	1050	200	470	170	M-20 x 200	22	55
4000 (s)	900 (±450)	568 (±284)	1600	85	2700	1190	815	815	1250	200	520	170	M-20 x 200	22	55
4400 (s)	990 (±495)	624 (±312)	1600	85	2940	1290	815	955	1440	200	570	170	M-20 x 200	22	55
4800 (s)	1080 (±540)	680 (±340)	1600	85	3180	1390	955	955	1630	200	620	170	M-20 x 200	22	55
5200 (s)	1170 (±585)	728 (±364)	1600	85	3420	1490	955	1095	1850	200	670	170	M-20 x 200	22	55
5600 (s)	1260 (±630)	776 (±388)	1600	85	3660	1590	1095	1095	1980	200	720	170	M-20 x 200	22	55
6000 (s)	1350 (±675)	832 (±416)	1600	85	3900	1690	1095	1235	2165	200	770	170	M-20 x 200	22	55
6400 (s)	1440 (±720)	888 (±444)	1600	85	4140	1790	1235	1235	2350	200	820	170	M-20 x 200	22	55



Elastomer properties	Value	Test method
Hardness	62±5 Shore A	ASTM D2240
Tensile strength	>160 kgs/cm²	ASTM D412/NFT46002
Elongation at break	>425%	ASTM D412/NFT46002
Rubber-steel adhesion	11,8 min N/mm	ASTM D429 Method B
Ozone resistance	.-30°C	ASTM D1329
Compression set	35% max def	ASTM D395 Method B (24 hours at .-70°C)
Thermal aging	<5 Shore A	ASTM D573 hot air (70 hours at 70°C)
	.-15% Tensile strength	
	.-25% Elongation at break	

**Metal component:**  
Steel fabricated acc. ASTM Type A36 DIN 17-100 Type ST 37-2.

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.

Contact us at [info@uslekspan.com](mailto:info@uslekspan.com) for more information.

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

- 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.
  - Values stated in this brochure correspond to the manufacturers test results and are only indicative.



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